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NO. 1

Local Anesthesia in Abdominal Surgery.

W. J. GATES, M.D., Kansas City

Read at the Annual Meeting of the Kansas Medical Society at Wichita, May 7-8, 1924.

The development of local anesthesia during the last 25 years has more than kept pace with other scientific achievements in medicine. There has been developed a wealth of material and a perfection of technique that enables the surgeon to meet almost any condition successfully without resorting to general anesthesia.

Nevertheless, we still see in a large degree, the routine use of ether or other anesthetics with very little thought to that which is safest for the patient. Since the introduction of novocain we have an anesthetic that is so slightly toxic that it may be employed in any reasonable doses—Allen records using 385 cc of a one per cent solution in a single operation. There is no pain from its use; it is not followed by edema of the tissues; healing is not retarded and in every way it meets the demand of a proper surgical procedure. Considerable skepticism seems to exist among members of the profession as to the efficiency of local anesthesia in the field of major surgery. That an abscess may be painlessly opened or minor operations performed under its use will be readily conceived. But its application to major surgery is too often brushed aside with the view that the operator is grandstanding or that he is carried away by his enthusiasm.

Such a view is not justified by the facts. Local anesthesia under a proper technique is a positive agent by which major operations may be safely undertaken with an absolute assurance that the patient will be free from pain or inconvenience during the procedure.

For the successful employment and induction of local anesthesia the surgeon must have a special knowledge of the anatomy and relations of the nerve supply of the parts to be attacked. He must employ a gentleness of touch in handling of tissues. His dissections must be accurate and done by the sharp or feather edge method. Any

pulling or rough handling of tissue is to be avoided. Thus the same operation under local anesthesia will probably take more time than if done under a general anesthetic. Compensation will be found in the patient having less shock and a convalescence almost uniformly without incident. Even in those cases where unforeseen complications have made necessary the use of ether anesthesia to complete an operation begun under local, the patient will be very much less disturbed than would a similar care operated entirely under ether.

By local anesthesia I do mean a combination of morphine and scopolamine plus a local anesthetic. We find that the patient is tranquilized and assumes a much more quiescent mental attitude by giving every case one-eighth grain morphine and 1/150 grain scopolamine, one hour before the operation. This dosage in no way is sufficient to more than have a slight synergistic action upon that of the local anesthetic.

As a judge weighs the law and the evidence, so should the surgeon give earnest consideration to every phase of a patient's case. Should a general or local be used?

Certain things surely are unfavorably influenced by ether. The condition of the patient as to age and physical state, kidneys, lungs and liver, are important elements entering into and influencing the choice of an anesthetic. Will shock be increased or diminished by the patient being allowed to retain consciousness during the operation? What will be the post operative condition if operated under a local anesthetic? Will there remain a horror of the operating room from suffering experienced therein because of the retention of their consciousness? Every condition set forth above can be answered affirmatively as to the advantage of the patient operated under local anesthesia. Not only so, but shock is diminished, nausea is slight or entirely avoided, and the convalescence of the patient dates from the moment of the completion of the operation. In operations for hernia this is a very distinct advantage. The absence of vomiting relieving the

stitches of all strain. In severe cases of appendicitis complicating pneumonia, I have not hesitated to remove the appendix under a local anesthetic, and I do not think the course of the pneumonia was unfavorably affected thereby. In pulmonary tuberculosis having acute abdominal complications, local anesthesia is of distinct advantage.

If in these doubtful cases where, because of the patient's condition a general anesthetic would unfavorably affect the prognosis, we are led to select a local anesthetic, why not give all our cases the benefit of at least a partial local anesthesia? Very little difficulty is experienced in the matter of employing a local anesthetic. Many patients have a distinct horror of being put to sleep, and accept it with relief. A patient coming to operation usually has an unbounded faith in the surgeon. If the surgeon has confidence in the chosen method of procedure the patient usually is ready to leave the choice of anesthetics to the surgeon.

The abdomen is, contrary to general belief, not filled with sensitive organs and structures. I was greatly surprised in doing my first local abdominal operations to find that the organs could be pinched, cut, pierced and otherwise carefully handled with impunity so far as pain was concerned, though I had had the statement of other operators to that effect. They are, however, exceedingly sensitive to pulling and rough handling. Traction may be made on the abdominal wall if at right angles to its plane, but the moment traction is made in other than this axis, pain becomes manifest. The parietal peritoneum lying against the pro-peritoneum fat is in contact with the terminal structures of the spinal nerves, and any displacement of the parietal peritoneum produces pain. Likewise, pressure i. e. the atmospheric pressure on the abdominal wall produces pain unless we are careful to induce a negative pressure as set forth by Farr in his excellent book. Therefore, abdominal surgery under local anesthesia requires a liberal incision, the production of a negative pressure. The technique which I employ is very simple and can be easily carried out. Para-vertebral blocking of the spinal nerves as they merge from the inter-vertebral foramen is useful and gives us absolute anesthesia. It is, however, rather elaborate, requires much handling of the patient, and in view of the fact that proper infiltration of the abdominal wall

gives equally good results, I find the latter the method of choice. As an anesthetic I use one-half per cent solution of novocain in a fifty per cent isotonic salt solution. This may be sterilized by boiling 20 minutes, and it is my customary practice to have it sterilized in this manner, set away and then reboiled before using. My experience with sterilizing in the autoclave leads me to believe that high heat has some unfavorable effect upon novocain as an anesthetic.

Epinephrin has been shown to increase the duration of the anesthetic. Personally I do not use any other agent than the novocain for obvious reasons. The infiltration is begun just beyond the extreme limit of the contemplated incision. An ordinary ten cc luer syringe with a long flexible needle may be used. At the point of beginning an intra-dermal wheal is made. The needle is then pushed through the sub-dermal tissues its full length. While doing this the plunger of the syringe is slowly pushed in thus depositing the anesthetic throughout the tissues traversed by the needle. The extremity of the needle is now pushed into the skin and another intra-dermal wheal is produced. This procedure can be repeated until the full length of the incision has been infiltrated. Deep infiltrations are now made by entering the skin through the wheals already produced. In making deep infiltrations each layer of fascia can be identified as they are penetrated by the needle. The infiltrations should be made along the course of the spinal nerves supplying the region to be operated thus blocking them.

All tissues should be gently picked up by forceps and the incision made while they are so lifted up. This obviates pressure upon the peritoneum. When the peritoneum is reached I pick it up and inject a few drops of novocain through a fine needle. After which the abdomen may be opened without pain. Gentle traction should now be made, lifting the abdominal walls take place and the abdominal contents fall straight up when negative pressure will away from the abdominal wall.

I have my anesthetist sit by the patient's head engaging the patient in a quiet conversation as to what is transpiring and exercising a psychological influence, so that many times I have had the abdomen open while the patient was under the impression that I was still injecting the anesthetic.

A properly placed incision of ample dimensions renders the subsequent work easy.

In gall bladder operations, I attack the gall bladder at its fundus. Five to ten cc's of novocain are injected along the white line, not so much because of its need, but rather as some authors have shown, the pressure of the fluid "blows off" the gall bladder and it is easily separated. As the cystic duct is approached a few cc's of novocain, along the course of the structure, will anesthetize the anterior splanchnics so that the common duct may be placed upon a stretch and examined for obstructions without pain. The operation is completed in the usual manner.

For an appendectomy, I prefer either the McBurney or the Elliott incision. The head of the cecum may be delivered in the usual manner a few drops of novocain injected into the meso appendix and the operation painlessly completed in the usual manner. Retrocecal appendices afford more difficulty but working within the abdomen may be handled with facility by clamping and cutting off the appendix and burying the stump. After which the mucosa and submucosa may be stripped out as the finger is removed from a glove, thus saving pulling and handling necessary if an attempt is made to deliver and ligate the meso appendix in the ordinary way.

To my mind, the most interesting operation done on the abdominal wall under local anesthesia is that for inguinal hernia. I outline the incision by infiltration, then deposit through the lower extremity of the infiltration about ten cc of the solution deeply into the scrotum. Also freely infiltrated the deeper tissues on both sides of the inguinal canal. Upon reaching the fascia of the external oblique, I split its fibres about one inch above the external ring. I pick up the cut edges with two Allis clamps and spread them apart. The ilio-inguinal nerve can now be observed lying along the inner border of the canal and running across my incision. I pick this up on a fine needle and inject it. This effectively blocks the field of operation. In congenital hernias the entire sac and testicle can be delivered without pain, a bottle operation done with the upper end of the sac and the lower end closed in the usual manner. In carrying the dissection of the sac high up into the internal ring it will be necessary to inject the neck of the sac to avoid pain. All muscles will be well relaxed and coaptation of the various layers can be made without tension.

I might add that I use practically the same technique for varicocele and hydrocele

operations excepting that I close the opening made in the external oblique instead of laying the external ring open as is done in hernia.

Gynecological operations require a blocking of the sacral nerves in order to bring about a proper anesthesia.

Much of my experience with local anesthesia was obtained independently of other operators, but I have been greatly pleased in observing that most men doing major surgery under local anesthesia are working along the same lines and establishing this much needed field of surgery upon a firm and scientific basis.

Supravaginal hysterectomies can be done by infiltrating the round ligaments and the anterior and posterior uterine ligaments. Panhysterectomies require para sacral and para vertebral blocking. Resection of the fallopian tubes may be done under blocking of the round ligaments.

—R—

The Use of Neo Arsphenamine in the Treatment of Pyelitis.

R. W. HISSEM, M.D., Wichita

Read at the Annual Meeting of the Kansas Medical Society at Wichita, May 7-8, 1924.

As urologists we are very much interested in the treatment of the very common disease or symptom, as some may call it, of pyelitis, and especially so in young children and infants, and after having used every method available for a good many years in the treatment of the same, and seeing questionable and varied results, we naturally began looking for a simpler less painful method of treatment.

The use of neo arsphenamine as a treatment is not original with me, but having had several communications with men in clinics elsewhere I became interested in its use, and in searching the literature, find that there is very little said on the subject, but a few men are using it as a treatment in some cases and with excellent results.

The most complete article on this subject is one by Chetwood ⁽¹⁾ in which he quotes Gross ⁽²⁾ of Vienna, Necker ⁽³⁾ Koll ⁽⁴⁾ and Nathan ⁽⁵⁾. He states that the idea originated with Gross of Vienna, and that Koll of Freiburg has been using it for three years. (January, 1923).

As we understand it the action on a urinary infection (Necker) was observed in a tabetic case, who had both pyelitis and cystitis.

In the treatment of pyelitis it naturally necessitates a thorough examination of our patients to determine the focus of infection.

The examination should begin with the nose, and its sinuses, the mouth, throat, teeth, and all organs liable to harbor infection, as gall bladder, appendix, intestines etc., and especially so with the genito urinary tract, including a pyelogram of the kidneys, and most important of all a ureterogram to exclude narrowings, kinks, stones or other obstructions, and a function test to eliminate pyelonephrosis.

Vincenzo ⁽⁶⁾ shows where he uses urotropin and neoarsphenamine in all cases of urinary infection, and two cases in pyelitis with hypertrophy of the prostate, and in one case this helped him in hastening his second stage operation and advocates its use in therapeutic, as a preliminary in surgical treatment in cases especially of prostate and bladder.

It will be impossible to go into detail concerning the various methods used in the treatment of pyelitis, but as you all know, everything has been used in its time, the thing which has "stuck" so to speak, I think, is the pelvic lavage through a ureteral catheter, with solutions of silver nitrate, one-eighth to three and four per cent, mercurochrome, acriflavine, and various other drugs, but this treatment is quite an undertaking—is dangerous unless properly performed, and in some cases is very painful, but perhaps the most unpromising feature of it is the fact that cystoscopes and ureteral catheters are not available to every physician. It is alright in most cases to cystoscope infants, and although we do this I do not think it advisable in all cases as a routine measure, especially in boys. Most of these cases in infants require anesthesia.

Intravenous and internal medications with different chemicals and drugs have been used, and still are used with good results in some cases. Hexamethylenamin, by mouth and intravenously, probably is used more than any other drug, and of course other drugs too numerous to mention, but with which we are all familiar, are to be recommended but are very unsatisfactory in their specific results.

Observers note that the intravenous use of neosalvarsan is excellent in certain types of cases—namely the coccis infections while some claim no results in colon infections, but our experience has been different in that we shall report some cases of colon infection in which the cure was immediate and lasting.

The theory is that the antiseptic action of the neosalvarsan is due to a splitting off of formaldehyde in the kidney itself, which we

have been able to show questionable in some cases, and in others we have found none. The arsenic elimination from the bowels and kidneys is only about 40%, a large per cent Bulmer ⁽⁹⁾ shows first goes to the liver, and after an hour the lungs seem to be the eliminating organ, and very small amounts of arsenic are found in the urine, and this only for two or three days.

It has been shown recently by Kolmer and Lucke ⁽⁸⁾ that arsphenamine acts more specifically upon liver substances, while neoarsphenamine acts upon kidneys, and there is a slight destruction of lining cells in some cases.

We have used and seen used neoarsphenamine in the treatment of over fifty cases of pyuria and pyelitis in which we were certain there were no obstructions in the ureter, except in the cases of infants in which a cystoscopy was not thought advisable, and in pregnancy.

We paid no attention to the reaction of the urine which is important and necessary in the administration of hexamethylenamine. Our results have been excellent in more of the cases but in some of them it was necessary to use other methods of treatment in combination.

The technique is practically the same as in the treatment in lues with the arsenicals, namely we employ a 5 c.c. syringe in children and give a small dose of neoarsphenamine commencing with one-half dose of 0.15 for the first, and repeating up to 0.2. In adults we use a 20 c.c. syringe and use 0.2 to .45 neo-arsphenamine intravenously. All of these cases repeated at five-day intervals, depending on reaction, temperature and urinary examination.

Usually these cases have no reaction following the treatment, and their temperature is down the next morning to normal, or at least within a part of a degree of normal, and usually stays down near normal.

There are no contra-indications to the administration of this drug except as would be expected in the treatment of syphilis, and of course the usual word of precaution is necessary about getting out of the vein, which applies the same here as in other cases.

Neoarsphenamine is the drug of choice, however, good results have been obtained with sulpharsphenamine, but old arsphenamine is not good in the treatment of these cases. This was shown by Chetwood, and we have observed the same. This may be due to the action of neoarsphenamine on

kidneys and arsphenamine in liver, as was shown above.

In the cocci cases the drop in temperature is usually marvelous, also pain and urinary symptoms subside early, while in the bacillary types, we do not look for a clearing of the urine for several days, or at least until after two or three injections. In children we enter the veins of the neck, or give the drug intramuscularly.

CHILDREN

Case No. 1. First seen April 20, 1923—Child age one and one-half years has been sick most of her life with chronic constipation, and at times when she is constipated complains of pain in rectum and bladder and sits on vessel crying for several minutes. Her first examination showed numerous pus cells, colon bacilli, staphylococci, alkaline urine and occasional R.B.C. but she was catheterized. Temperature 104°, rectal. I put her on a citrate mixture with orange juice and it relieved her temporarily after a thorough catharsis of castor oil.

She had several attacks simulating the first and on March 15, 1923, at 4:30 p. m. I gave her a 0.15 neoarsphenamine intravenously and her temperature dropped to 99° that evening and she had a good sleep, voided urine normally the next day. This was the only injection I gave her, but she has been free from the terrible griping symptoms, and only when constipated has pus in urine, but this is mild compared with her previous condition. I examine her urine fairly regularly.

Case No. 2. Child, age six, has been having pain in kidney region with pus in urine, and bed wetting—temperature not as high as in case one, but from one to two degrees of fever. Urine usually alkaline and loaded with colon bacilli. I gave her 0.2 neoarsphenamine intravenously on March 10, and she stopped bed wetting immediately, and her urine showed traces of formaldehyde the next day and urine clear for two days.

She developed measles in the interim and her symptoms returned in part and I repeated a 0.2 neoarsphenamine on April 13, which again cleared her urine. She had no reaction from either injection, but I believe she should have been treated sooner as I directed, but which could not be done, because of the complications.

PREGNANCY

In pregnancy we have been using this, and I really think a great deal should be said for it here because, after the sixth

month it is practically impossible to do a satisfactory cystoscopy and lavage on account of the pressure.

On the other hand one would naturally not expect a good result from any treatment, because of the improper drainage of the kidneys. However, I have had three or four very interesting cases, in which the results were marvelous, and far superior to a pelvic lavage, and have had physicians using it who said it helped in all cases.

There are no contra-indications to administering the drug that I have ever encountered, and I think the chances for a miscarriage are far less than by a cystoscopy.

Case No. 3. Mrs. S., age 20, referred for pyelitis, May 11, 1923, from out of city. Seven months pregnant and when she came in was having severe labor pains and was placed in the hospital under an obstetrician, who checked this condition for her. Her temperature was 104° in the evening of the day of her arrival.

I cystoscoped her on the fourth day and found it was impossible to reach the right kidney, the catheter meeting an obstruction just below the pelvic brim. The urine was loaded with pus, mostly colon, but a coccus present. She was given a neoarsphenamine 0.3 intravenously and her temperature dropped the next morning to 99° and she felt much better, and the urine showed a great improvement on several examinations.

She was in the hospital for a week and remained in Wichita for another week and was then returned to the referring physician. In a personal communication from him he tells me that she went to term without any more symptoms. It was a normal delivery and a healthy child.

Case No. 4. Mrs. H., age 22, six months pregnant, referred to me for pyelitis. Had a history of pyelitis several years ago, at which time she had considerable trouble. At present time patient is running a temperature of 104° in evening. The urine has been alternating between acid and alkaline and at present time is highly acid. The urine is loaded with pus and mostly colon bacilli. She was given neoarsphenamine 0.3, March 27 in a. m., with a slight drop in temperature in the evening—on March 29 the urine was somewhat improved, but still much pus. She improved very much following this, and went home after receiving a neoarsphenamine 0.4 on April 1. She felt comfortable but the urine remained somewhat cloudy. She went down

town, and returned home having a temperature of 102.5° in the evening of April 13, and I again gave her a neoarsphenamine 0.4 she did not show much improvement, but at the present time is improved under increased fluid intake and an occasional neosalvarsan.

I did not cystoscope her because she objected to it, and I felt certain there would be an obstruction to the ureter making a lavage impossible.

MISCELLANEOUS CASES ADULTS

In this series of cases we cystoscoped the patients and ruled out obstructions by uretero pyelograms.

Case No. 5. Mr. K., Age 42, credit manager for a large concern, was referred with severe pain in lumbar region both sides, and with pain in bladder, and stating he had been sick for several days with "a sort of La Grippe" accompanied by temperature of 102 to 103 degrees especially in the evening.

His appearance was one of sepsis, he could not work, and had lost his appetite and had been nauseated.

Cystoscopy showed an ulcerated area around the right ureter and accompanied by a marked inflammation of the bladder and especially the vesical orifice and trigone. Catheterization of ureter and pyelogram eliminated stones or obstructions of ureter. His function test is normal.

In obtaining his history he told me that his daughter, a small child, was just getting over an active T. B. and we thought the ulceration might be tubercular, as it was very suspicious. Examination eliminated this. Dec. 5, 1923, he had a severe reaction following the cystoscopy and pelvic lavage, and was in bed for several days. As soon as he was able to come to the office, Dec. 11, 1923, (six days later) I gave him neoarsphenamine 0.4 and he came to the office the next day feeling fine, and the urine showed much less pus and a slight trace of formaldehyde. I examined the urine on Dec. 22, 1923 and Jan. 4, 1924, and March 7, and he has shown no recurrence of his former trouble, and says he is feeling better than he has for several years.

We used neoarsphenamine in several prostatic cases accompanied by pyelitis with excellent success, even though the obstruction was not removed.

In another case of a young man who had an injury accompanied by a paralysis involving the bladder, and a resulting retention of urine, whose temperature reached 104°, the neoarsphenamine did not relieve

his symptoms until we established drainage by an indwelling catheter.

In a case of pyelitis, cystitis and prostatic hypertrophy in a man over 70 years of age, who had fallen and injured himself and later developed pneumonia, the symptoms of pyelitis came on rather suddenly after his pneumonia had subsided.

His cystoscopic picture was one of hypertrophy and infection with urine loaded with pus and cocci. The results were excellent within twenty-four hours following neoarsphenamine 0.3. Following labor it has been used in three cases from the Salvation Army who had pyelitis, and all improved under treatment with this drug.

In the consideration of intravenous medication on general infection many articles have been written, the principal and most important one by H. H. Young ⁽⁵⁾ and Justine Hill, J.A.M.A. March 1, 1924, in which they described mercurochrome and gentian violet in treatment of septicemia, used neoarsphenamine intravenously with no effect.

In a review of literature I also found an article by Birt ⁽⁷⁾ from Zurich in which he used neoarsphenamine in all cases of surgical infection and in which he reported a case of badly infected multiple stab wounds in a Chinese laborer, whose temperature subsided to normal at the end of four days.

Dr. Paul Carson, of Wichita, has treated seven cases in children with good results in all of them.

Dr. M. W. Hall, of Wichita, has treated five cases in pregnancy with improvement in most all of them.

Dr. Chas. Phillips, of Pratt, Kansas, has treated four cases of miscellaneous and pregnancy with excellent results.

I realize that this is but a personal observation of but too few cases to make this a specific treatment of all cases of pyelitis, and I do not think it should be used alone in all cases of urinary infection, because they are not all pyelitis, and should be examined thoroughly before making any positive diagnosis, for too often we have seen severe operations follow for destroyed kidneys, etc., after the too certain diagnosis of pyelitis.

It is absolutely essential to eliminate destruction of the kidney tissue by infection, or by obstruction and infection; to eliminate kinks, narrowings, stones, and pressure, before any permanent result may be obtained from any treatment of pyelitis, and I would also like to state that all dila-

tations shown in ureterograms are not necessarily due to structure, but sometimes may be due to faulty injection of the medicine, and the too ardent desire to report a large series of strictures.

Neoarsphenamine will do a great deal of good in some cases of pyelitis especially the toxic type in which you have no time for an immediate cystoscopic examination and in most all cases of cocci (except gonococci which is rare) and will do lots of good in some cases of pure colon infections, but these cases should all be checked by a urological examination especially if they do not show improvement after a few treatments.

Neoarsphenamine is cheap, easy to give as any intravenous injection, and I believe you will agree with me is much simpler, less painful, and more satisfactory than pelvic lavage in the hands of a man who is not trained in the use of a cystoscope.

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An Analysis of the Reported Cases of Diarrhea and Enteritis (under 2 years) Occurring in Kansas City, Kansas During June, July and August, 1924.

L. B. GLOYNE, M.D.

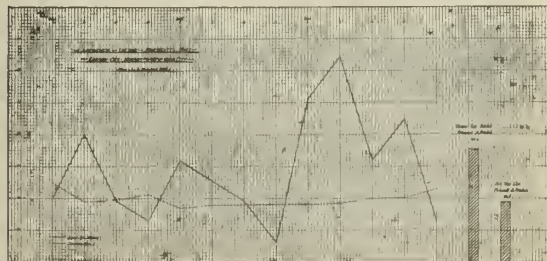
Read before the Wyandotte County Medical Society, November 4, 1924

Because of the fact that diarrhea and enteritis is by far the most important factor during the summer months in infant mortality rate in Kansas City, Kansas; and because no organized work to reduce the infant mortality rate has been carried out, the following analysis was made; it being desired (1) to show the actual condition in a city over 100,000 population, where none of the various factors, such as well-babies clinics, specialized infant welfare nursing, or universal pasteurization of milk, have had a chance to affect the infant mortality rate, (2) to bring out, if possible the point

at which an attack should be started to reduce the rate.

Following the International Classification of Causes of Death, there has been grouped under the title, "diarrhea and enteritis (under 2 years), "a number of terms used by the profession, namely: cholera infantum, colitis, enteritis, gastrocolitis, ileocolitis, infantile diarrhea, intestinal infection, intestinal intoxication, summer complaint, acute gastritis, enterocolitis, etc. It is interesting to note, that there are 169 terms used by physicians signing death certificates, that are classified by the commission on "International Causes of Deaths," under the one term "diarrhea and enteritis (under 2 years)." While the total number of cases here studied is too limited to draw any positive conclusions, still they present food for thought.

Before going into the particulars of the cases in Kansas City, Kansas, let us look at a comparison of Kansas City, Kansas, with New York City for the months of June, July and August, 1924. It is commonly thought that New York City is a very hazardous place in which to raise babies, but your attention is directed to the curve of the infant mortality rate (i. e. infant deaths under 1 year from all causes) for New York City and for Kansas City, Kansas. The solid line represents the rate in Kansas City, Kansas, and the dotted line that of New York City. It will be noted that the rate for Kansas City, Kansas, as a whole is much higher than New York City; and that for the four weeks of August, it is almost three times higher in Kansas City, Kansas, than in New York City. The average for the whole three months gives Kansas City, Kansas, a rate practically twice as high as New York City.



While looking at this first chart, your attention is called to the fact, that during the week ending August 2, considerable publicity was given to the local condition. This publicity continued for over a week. There was a marked decrease in the num-

ber of deaths immediately following. I am of the opinion that the publicity was not the sole factor in reducing the rate, but am sure, from the first hand information received, that the parents showed much more interest in their babies, and the family physician was called much sooner in a great many cases, than he would have been, had not the publicity been given the situation. One may ask, was the situation such that it was justified to give publicity to it? When it is learned that during the week ending August 2, Kansas City, Kansas, had the third highest infant mortality rate in the United States in cities over 100,000 population, and that during the week ending August 9, it had the second highest rate, I believe it will be agreed that the situation needed special publicity.

All cases of diarrhea and enteritis, which were reported were investigated. An investigation was made into the kind of food and water used, and into the sanitary condition of the home. Only too frequently the first report which we had, was the death certificate, so often the investigation was made several days after death. We had 57 cases reported, of the number 39 died. This gives us a case-fatality rate of 68, which shows that we either had a very severe type of illness, or else all the cases were not properly reported. Because of the fact, that we had a number of cases in which the death certificate was the first report, I am inclined to believe, that we were dealing with an average condition, and that as much care in reporting the cases was not exercised as should have been. We were able to get reliable information in 49 of the 57 cases reported. This includes 32 of the 39 deaths.

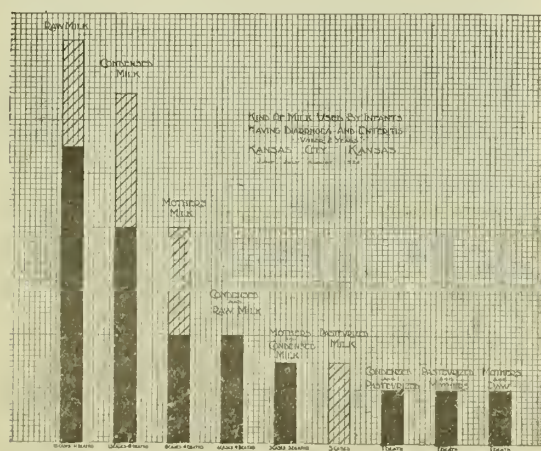


Figure 2 shows the total number of cases,

and the total number of deaths classified according to the kind of food that was given the baby. It will be seen, that there were 15 babies, 11 of which died, on raw milk; running a close second, were the cases on condensed milk, namely 13 with 8 deaths. A rather unexpected condition, to me at least, was to find in third place the babies on mothers' milk, 8 with 4 deaths. Babies on both condensed and raw milk, with 4 cases, all of which died, were in fourth place. Those on both condensed milk and mothers' milk, with 3 cases all of which died, and those on pasteurized milk, with 3 cases, none of which died, tied for fifth place. We had one death from the following combinations: condensed and pasteurized milk, mothers and pasteurized milk, and mothers and raw milk.

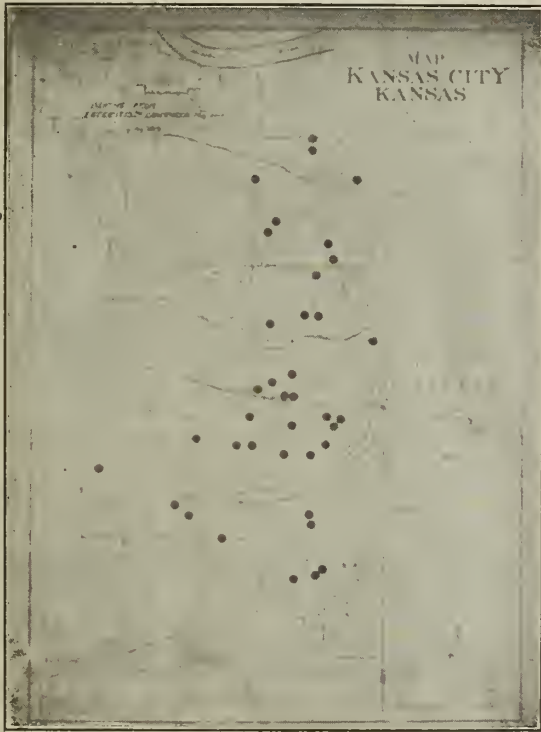
From these figures it can be stated very definitely that the cause of our trouble was not from milk coming from a single source, nevertheless a very important observation to be made is the fact, that raw milk heads the list of the cases and of the deaths. Of those cases on a single kind of diet, pasteurized milk is at the bottom with no deaths. Public health authorities seem well agreed that all milk, except certified milk should be pasteurized; and some, possibly the majority, now insist that even certified milk should be pasteurized. Our findings seem to be in line with such a recommendation. It must be stated however, that while about 60% of our milk supply is pasteurized, it is very probable that much less than 60% of our infants are on pasteurized milk, because of the fact that a large number of physicians recommend raw milk, and do not even recommend pasteurizing it in the home,—a practice in my opinion, that is wrought with many potential dangers.

Water does not usually play an important role in the type of disease under consideration, but it surely must be investigated before it can be positively eliminated. 85% of the cases used city water. This is approximately about the same per cent as the per cent of the total population that uses city water, so epidemiologically water is not definitely incriminated. The report on the water for the three months shows it to be in an excellent condition and free from contamination, and in a much better condition than the government standards.

	Average	Highest	Lowest	Total
U. S. Government Standard	100			
Month	Month	Month	Month	Coli
				2 of ten
				10cc portions

Kansas City, Kansas, June	46	112	5	0
July	36	73	7	0
August	29	53	10	0

The average count for Kansas City, Kansas, is based on the counts made on 73.3 cc. of water collected daily. I believe that with these findings, we can absolutely eliminate water as the source of our infection.



Let us next consider the geographical distribution of these cases. A glance at the map on which deaths are spotted, shows a very interesting condition. There was not a single death in the northwestern section of the city, i. e. north of Muncie Boulevard and west of Eleventh Street. This comprises one-third of our total area, and is our better residential district. There were 11 deaths in the Armourdale district, which comprises only about one-eighth of our total area, but contains the majority of our industries. The strip across the entire city east of Eleventh Street includes the vast majority of deaths. Thus it will be seen that the newer and more sanitary portions of the city were free from the disease in its fatal form, while that portion of the city, which has old buildings and poor sanitary conditions, furnished practically all the deaths. I would not draw the conclusion that the sanitary condition was the sole factor in the deaths, but that coupled

with the sanitary condition of the district, and with the class of people, who live under there poorer conditions, we have a potent factor in the situation. It has been noted, that the majority of these cases occurred in homes where the sanitary condition of the home was below even the average for the district. The houses were poorly screened, or in some places where the screens were in good repair, there was an excess of flies due to carelessness. I believe that it is safe to conclude, that the most important factor in these cases was the actual care of the infant, and of his surroundings. Either carelessness of the mother in preparing the food, and allowing it to become contaminated by flies, or else, as was probably the case with the breast fed babies, allowing flies to get on toys or other articles, or on the hands of the baby, and then when the baby put any one of these into his mouth, the infection gained entrance. Another important observation was made, and that was that where there were the most flies in the house, there were usually the most uncared for soiled diapers. This makes possible a vicious circle, and the baby is constantly reinfected, and his chance of recovery greatly reduced. Levy of Richmond, Virginia, has shown in his city, that the infant mortality rate was materially reduced by carrying on a campaign to teach all mothers the proper care of diapers, and thus prevent access to flies to fresh infective material.

From a study of these cases, I believe that one can conclude:

(1) That there are a number of factors affecting diarrhea and enteritis in Kansas City, Kansas.

(2) That the sanitary conditions of the babies environment apparently is the most potent factor in these cases,

(3) That raw milk, even in a city of 100,000 population located in an agricultural community, where milk can be delivered comparatively promptly, because of the short haul, makes the poorest showing of all infant foods.

I would therefore recommend:

(1) That a well-baby clinic, or baby health clinic be established, to help educate the mothers,

(2) That specialized infant welfare nursing be done in the home to demonstrate to the mothers the proper care of the infants, and of its food,

(3) That pasteurized milk be recom-

mended as the food of choice for infants.

Note No. 1. Editorial, American Journal of Public Health, "Pasteurization of Milk," Page 700, Vol XIV, No. 8, August, 1924. "In the meantime the only possible safeguard is pasteurization. We have no hesitancy in saying that pasteurization should be recommended by all physicians and health officers. The American Milk Commission by an informal vote has recommended even the pasteurization of certified milk. The study made by the New York City Board of Health on children fed at the fifty-five municipal milk stations in that city demonstrates the tremendous value of pasteurization in combating diarrheal diseases of infants, and showed also that these children gained weight regularly. It has also been demonstrated that pasteurization kills the tubercle bacillus and makes milk which would otherwise be dangerous a safe food for infants and children."

Note No. 2. E. C. Levy, "Reduction of Deaths from Infantile Diarrhoea," by Care of the Bowel Discharges of Infants," American Journal of Public Health, Vol. 10, Page 400, May 1920. "In my opinion the proper control of bowel discharge of all babies is the most important single measure for the control of fatal infantile diarrhoea in any Southern community."

B

A Case of Spinal Cord Injury

FRANK L. FLACK, M.D., Coffeyville, Kan.

Read before the Montgomery County Medical Society at Coffeyville, Nov. 21.

The case that I have to present is one of that group of cases that we see frequently and about which everyone has a different opinion and of course I do not expect all to agree with me on the diagnosis of this case. It illustrates a case of spinal cord injury and to be more definite an injury of traumatic origin to the spinal cord and in particular to the posterior columns of the cord. I believe it is due to hemorrhage.

This patient is a married man, 31 years of age, complaining of the complete loss of use of his right leg and thigh, complete loss of sensation for touch, heat and cold, muscle and joint sense, and in fact all sensation except that of deep pressure. He has had no trophic sores or ulcers and practically no atrophy beyond that which could be accounted for by disuse. This case is of 14 months duration, during which time his symptoms and condition have remained practically stationary.

He has been a boiler-maker, and very active and muscular. About 14 months ago while he was working on top of a steel tank and pulling with all his strength on a bull-hook, the hook broke or slipped and he fell violently backwards and across a sledge hammer. The sledge hammer striking him at about the small of the back. He immediately became unconscious and remembers nothing until about ten days later when he realized that he had been hurt and was in the hospital. He was more or less unconscious for ten days. The history also states that for three or

four days there was some bleeding from the mouth and nose.

Since that time he has had no use of his entire right lower extremity and has had the sensory losses enumerated above. He has suffered more or less from pains at the back of the head and at the small of the back. Sometimes these back pains are almost entirely disabling.

The family history reveals nothing of importance for his present illness. There is no history of hereditary nervous diseases. He has never had a neisserian or luetic infection. He has had no serious diseases or infections, nor has he suffered from any operation or other traumata. The sensorium is clear.

RESPIRATORY TRACT

The lungs are negative throughout to percussion and auscultation. The respiratory mobility is fair and equal. The breath sounds are clear and no adventitious sounds are heard. The nose and throat present no gross deviation from normal. The teeth are in fair condition. X-ray pictures of the chest are normal.

CIRCULATORY APPARATUS

Pulse is 78. Radial vessels are not palpable. The heart is normal in size and position. The apex beat is in the 5th interspace. $\frac{1}{2}$ inch inside the nipple line. There is no abnormal dullness. The heart sounds are clear. Blood pressure is 130-80.

A careful blood examination was made with the following findings: R. B. C. 4,800,000. Hb 92% Sahli. W. B. C. 8,200. Polys. 74, S. L. 18. L. L. 4. Trans. 2: Eos. 2. There are no abnormal staining qualities, polychromatophilia or other evidence of blood dyscrasia. There are no palpable lymph glands. The spleen and liver are not palpable. Blood Wassermann is negative.

Digestive apparatus is negative. There is no trouble with rectal sphincters.

Urogenital apparatus is negative. Urine is 1018 acid. No albumen. No sugar. Microscope negative. He has not now nor has he ever had any difficulty with the vesical sphincter.

LOCOMOTOR APPARATUS

He complains of pressure over the small of his back and after being moved around this is made worse. X-rays of the head, spine and pelvis are entirely normal.

The right leg and thigh show a flaccid paralysis.

Sensation tests with light touch as cotton, pin pricks, heat and cold show an absence of sensation on the right side from a

line three inches above the navel downward including the entire right lower limb. Everything is felt as pressure regardless of the modality. To the touch this area is cooler and the muscles more lax than elsewhere. There is an exaggerated red reaction to stroking. Sensations of deep pressure are found over the entire area. Stimulation of the right sole by any method gives a rapid involuntary up and down movement in the left toes. All such stimuli and felt in the opposite sole as tickling. There is no atrophy of the right leg. The knee jerks are about normal. There is no Babinski or other abnormal reflexes.

In the right upper extremity there is some hyperesthesia.

The pupils are equal and react to light both directly and consensually and to accommodation. The cranial nerves are normal. The optic discs are blurred at the margins until the margins can hardly be made out.

The pertinent findings in this case seem to point to the conclusion that he has had a hemorrhage into Gower's tract destroying his thermic sense and a hemorrhage into the posterior columns especially the column of Goll, producing his other sensory symptoms. The negative x-ray pictures rule out bone lesion. The blurring of the margins of the optic discs indicate that he has had an increased pressure within the skull lasting for several weeks at least. The hemorrhage must have been into the right side of the spinal cord at about the level of the 7th dorsal vertebra.

PROGNOSIS

There will be no improvement in the use of the right lower extremity and in the limb. He will always be totally disabled. The effects of the brain concussion are not serious and will improve in time.

TREATMENT

It has been considered advisable without promising any help to employ sensory stimulation by the faradic current and motor stimulation by the galvanic current. Massage and passive movements with an attempt to reestablish some voluntary control in the right leg might be tried. Prolonged use of strychnine and the iodides are to be given on general principles.

—R—
UNIVERSITY OF KANSAS CLINICS
 Clinical Lectures in Department of Pediatrics.

FRANK C. NEFF, M.D.

Epilepsy of the Petit Mal Type. This

boy, P. M., aged 5 years, had 30 to 40 slight convulsive movements daily, characterized by a sudden dropping of the chin upon the chest, or a backward tossing of the head, a sudden straightening or stiffening of the body and arms, a momentary staring and transient loss of consciousness. Since the trouble began last April he has had a few attacks of grand mal intermingled with the usual lighter attacks just mentioned. It is not known whether he had earlier the abnormal mental state designated as "equivalence" which consists of a change in disposition, fits of anger, displays of disobedience. This case is not Jacksonian, for there is no localized spasm of groups of muscles. The blood, including the Wassermann reaction, was negative. The spinal pressure ran from 120 to 220 (water manometer) while crying, the cell count normal and the Wassermann negative. Under 20 grams of bromide when he first came to the hospital, the number of seizures dropped to 3 or 4 daily. Following the spinal puncture there was during rest in bed complete disappearance of seizures, and of his marked intractability.

In case the attacks return we will try the fasting treatment of Conklin for 2 or 3 weeks, giving plenty of water, rest in bed, and only a minimum maintenance diet.

Later Note: Recently there has been tried with marked success in petit mal, in children who have no mental deterioration, a modification of the fasting treatment in which a Ketogenic (acidosis) diet is given, whereby there is produced and maintained a moderate acidosis, evidenced by the continued presence of acetone bodies in the urine. Along this line, Peterman advises beginning with a diet composed of three to five oranges daily, then the addition of articles from a mild diabetic diet—high fat and low protein and carbohydrate; as an aid in this treatment any foci of infection should be removed, and the child is required to have from 12 to 15 hours of sleep daily. Shaw and Moriarty in the American Journal Diseases of Children, November, 1924, have explained the good effects of starvation in epilepsy upon the basis of the hypoglycemia and the acidosis which results. The above mentioned lines of treatment offer better possibilities for the relief of petit mal than any other measures which I have tried.

Neuropathic or Hypertonic Diathesis of Infancy—Baby boy, 3 months old, nursing at a plentiful breast, began at a few weeks of age to be frightened at sights and sounds.

evidencing a precocity; he has had much regurgitation of food and, as is frequently observed in such breast infants, the appearance of unexplainable diarrhoea; he has been irregular in his weight gains and is still below for his age and birth weight. The striking attitude of the infant is seen in the retraction of his head, in the rigidity of his arms and legs, in the closed hands; increased knee jerks; there is no facial jerk (Chvostek reaction of tetany); the mother states that the baby cries all of the time, and that he has difficulty in swallowing usually in the beginning of nursing, or he may refuse to nurse (breast-shyness, as described by von Reuss in his *Diseases of the New-Born*). This is a type of infant frequently encountered which causes much family unrest and whose care becomes the bane of the physician. Many of the cases of so-called colic really belong to this syndrome of hypertonic diathesis.

The treatment is to so change the surroundings of the infant that he may keep quiet and with less handling; he is put on longer intervals of feeding, with the addition at each nursing of a thick cereal food, the administration of one or more buttermilk feedings with the nursings so as to lower the fatty acid content in the intestines (Holt & Howland). This infant has been receiving 1/1000 to 1/500 grain of atropine sulphate before feedings, since coming to the hospital and is now definitely less spastic, has less vomiting, more formed stools and is gaining in weight. He is happier and is less restless. You are referred to an excellent description of this condition by Sidney Haas in the *American Journal of Diseases of Children*, 1918, 15, p 323.

Coeliac Disease—October 21, 1924. This two-year-old boy is undersized, 32 ins., losing weight, now weighs only 14 pounds, has loose stools, large, white fatty, musty odor; he vomits frequently, has little appetite, is peevish, cries much, sleeps poorly; because of his large distended abdomen, he has been previously diagnosed as having mesenteric tuberculosis, but there is no fluid in the peritoneal cavity, his Pirquet and intradermal tuberculin reactions are negative; he has been diagnosed as having Hirschsprung's disease, but there never has been obstipation, the general health has always been poor, and the colon as shown by barium radiogram is not so large as in Hirschsprung's, and no peristaltic waves are seen. His blood is normal except for a rather low leucocyte count—5,900, the differential count, however, is normal as is the number

of red cells and the hemoglobin. It seemed to me that it would be a matter of interest to determine in this case of low sugar digestion what the storage of sugar in the blood might be as well as the urea nitrogen retention. The sugar is low, there being only 55 mg. per 100 c.c. of blood. The urea nitrogen content is also low, it being 4.2 mg. per 100 c.c. of blood whereas in children the average of the former is 100 and the latter (urea nitrogen) 12 mg. per 100.



Dilated Large Intestine in Coeliac Disease. (Radiogram following Barium Injection)

Coeliac disease is a variety of severe chronic intestinal indigestion of a functional character in which there is an inability to utilize carbohydrates and fats. Carbohydrates are so poorly tolerated that they can supply less than one-fifth of the total calories needed instead of the normal one-half. Herter, in 1908, described the condition as an infantilism resulting from repeated and chronic intestinal infections. It has been impossible to maintain improvement in such cases and I have seen them die finally from collapse.

For sometime it has been known that bread, crackers, cereals, potatoes, sugars

and fats were not well tolerated in this disease but that sour milk such as buttermilk and curds added, gelatin and broths formed the diet which gave what temporary improvement could be expected.



Large Abdomen with Coeliac Disease

Of marked interest and great benefit is the recent suggestion of Dr. Sidney Haas, in the American Journal of Diseases of Children, October, 1924, that well-ripened bananas furnish a carbohydrate in the form of a particular sucrose which is especially well handled by such cases. This child has been thriving well since the addition of six or more bananas to the daily dietary. These are put through a sieve, then beaten up and fed with a spoon. Six ounces of such banana mash contain protein 6 grams, carbohydrate 90 grams (3 ounces) fat 3 grams and a caloric value of 410. The feeding of banana seems to help in the utilization of the albumin milk, cottage cheese, orange juice, vegetable soup, gelatin and beef juice which has now been added to the child's diet. The child takes an average of 1500 calories daily. Additional treatment is a good sized dose of castor oil once a week and a daily enema of soda bicarbonate, one or two quarts.

Improvement is seen in the following or-

der: the disposition, the appetite, change from the large white mushy stools to a yellow stool of a smaller size, increase in weight. In this case 300 c.c. of citrated whole blood from the father was given intravenously to help the child over the low state of nutrition which had developed.

Later note, October 31st, child now taking 1800 calories daily. November 4th, instead of the extreme difficulty which has always existed in getting the boy to eat, he now has a splendid appetite and took 2900 calories. His stool is beginning to look normal, but the abdomen is still large. He has gained 2 pounds in two weeks. It is too soon to draw conclusions as to the ultimate progress of a condition which has usually seemed to be intractable, but it would seem that this case can be added to the list of cures brought about by the banana-sour milk diet.

Acute Osteomyelitis from Hemolytic Staphylococcemia. This little Italian girl, 4 years of age, was brought into Bell Hospital October 16th, having been sick 6 days with pain and swelling in the neighborhood of the right knee. Entrance temperature 106.4, delirium, hyperesthesia, swelling of the right leg from 3 inches above the knee to the foot. The cause of the slight retraction of the head and rigidity of the neck, the absent knee jerks, the positive Babinski reaction on both sides, the positive abdominal reflex, the suspicion of meningeal infection warranted a spinal puncture for the determination and if necessary relief of pressure and the examination of the fluid for micro-organisms. The spinal fluid was slightly increased in pressure, but otherwise perfectly normal. It was sterile. Not so with the blood. The blood culture gave a positive growth for hemolytic staphylococcus, while the leucocytes were 15,000, 80 per cent of which were polymorphonuclears. The urine contains much albumin and many granular casts.

On October 17th drainage was made in the region of the epiphysis of the lower end of the right femur and a large amount of pus evacuated. The progress of the same has been steadily downward. On October 19th, 30 c.c. of a 1/400 solution of gentian violet (85 mg.) were given intravenously. In spite of this, blood cultures following were still positive. On October 20th, the same size dose of gentian violet was repeated with 40 c.c. of 5 per cent glucose and 10 units of insulin. Blood cultures still positive, the temperature ranging as high as 106. On this day crepitant rales were de-

tected in the right lung at the base and there was a double heart murmur. October 21st the process had spread to both lungs, the heart murmur had disappeared and the sounds became very distant. Fluids under the skin and in the bowel were given. The patient died October 22nd, 6 days after admission and 12 days after appearance of the first symptom in the right knee. The diagnosis: sepsis from osteomyelitis with metastasis.

Summary: We had here an infection localized at first in the epiphysis of the femur; whether the organism causative of this infection gained entrance thru the skin or thru the tonsils which were infected, it is impossible to say; the resulting bacteremia and metastasis in other organs with the infecting organisms proving to be a hemolytic staphylococcus with death in twelve days.

Autopsy Findings: Acute suppurative

centage until the lymphocytes predominate in their infancy.

This case had dehydration fever on October 8th.

There was no reaction seen in the blood picture.

(The above blood counts were made by my house physician, Dr. Forman.)

The clinical picture of dehydration fever in this infant was characterized by abnormally red lips, dry mouth, breathing of the air-hunger type, rapid loss of water from the skin and subcutaneous tissues, a loss of weight which reached a total of one pound and two ounces on the third day, this amount being about twice the average physiological loss of weight found on the third day; sudden appearance of the high temperature and the absence of explanation therefor drew my attention to the small amount of fluid which the baby at that time was receiving. The following chart will

Baby Campbell—Routine Blood Analysis on New-Born.

Date	10-5-24	10-6-24	10-7-24	10-8-24	10-9-24	10-10-24
Age	1 day	2 days	3 days	4 days	5 days	6 days
Erythrocytes	4,292,000	4,389,000	4,150,000	4,040,000	4,640,000	4,228,000
Clotting time	2½ min.	2 min.	2 min.	2 min.	2 min.	2 min.
Hemoglobin	135% (S)	135% (S)	150% (S)	135% (S)	130% (S)	125% (S)
Bleeding time	6 min.	2 min.	6 min.	4 min.	3 min.	2½ min.
Leucocytes	21,870	12,425	14,550	12,750	13,750	12,250
Polymorphonuclears	87%	78%	66%	69%	80%	64%
Large Lymphocytes	1	8	12	12	5	10
Small Lymphocytes	12	12	16	18	15	21
Transitionals		2	4	2	1	4
Eosinophiles			2			

osteomyelitis and periostitis of the femur; myocarditis; fibrino-purulent pericarditis and pleuritis; multiple abscesses of the lungs; lymphangitis of the pulmonary lymphatic; acute splenitis; acute toxic nephritis.

Dehydration Temperature in the Newly-Born. October 29, 1924. Baby Campbell, boy, 48 hours old began to have a constantly rising temperature until it reached 104° at 72 hours of age; there was no pus nor infection in the urinary tract, the blood count at this time was not affected by the baby's temperature or the cause which produced it. On the table below is given the characteristics of the blood determinations in the new-born. It will be noticed that new-born babies have a high hemoglobin, a high white blood count on the first few days and that the polymorphonuclears which make up almost the entire white blood picture the first day of life gradually decrease in per-

show the intake of fluids on the first five days of life:

Day of Life	1	2	3	4	5
Water	3 oz.	2 oz.	3 oz.	2 oz.	4 oz.
Formula	2 oz.	2 oz.	8 oz.	12 oz.	12 oz.
Breast	0	0	1½ oz.	3 oz.	2 oz.
Temperature ..	98.4	98.4	104	99	98.8
Urine			Neg.		Neg.

Increased fluids were begun with the high temperature on the 3rd day, the fever disappearing within 24 hours after the free administration of fluids.

Grulee and others were the first to write on this subject about five years ago. The condition had been called starvation fever by Holt, intestinal intoxication of the-born by Morse. Acute pyuria develops suddenly in certain newly-born infants and unless the urine is examined microscopically may be overlooked. Dehydration fever must be differentiated from all the other febrile conditions found in the new-born.

UNIVERSITY OF KANSAS CLINICS

A Case of Paresis Treated with Tryparsamide

Clinic of A. L. SKOOG, M.D.

Dept. Neuro-Psychiatry.

The patient about to be presented illustrates one of the numerous cases where good results are obtained by the use of tryparsamide. There are also represented two or three types of paresis which undoubtedly had started with an early stage of optic atrophy which serious clinical manifestation appears in a number of different types of meta-syphilis.

Although tryparsamide has been known since 1915 when it was first synthesized by Jacobs and Heidleberger, yet the first clinical application in the treatment of neuro-syphilis was begun the latter part of 1919, by Lorenz, Loevenhart, Bleckwenn and Hodges, the larger number of their patients treated being paretics. Moore and others have given us reports on attractive results obtained in paresis, tabes, parenchymatous neuro-syphilis and some other types. Reports for the primary lesion and secondaries are decidedly discouraging. This is of much interest in that heretofore all of the remedial agents proposed for the treatment of syphilis have given much better results in the earlier stages. Especially have all of the meta-luetics yielded comparatively inferior total results, using the many past methods proposed. Thus we welcome the clinical application of this new arsenical synthetic product in the treatment of paresis, tabes and other types of late parenchymatous neuro-syphilis and vascular syphilis. Apparently tryparsamide is a true specific for trypanosomiasis and mal de caderas.

This new therapeutic agent is the sodium salt of N-phenylglycinamide-p-arsonic acid. Following the discovery it was studied experimentally by Brown and Pearce, and clinically on animals which had been inoculated with trypanosomiasis and syphilis. These workers became enthusiastic about its use. The arsenical content is about 25 per cent, yet 3 gram doses are tolerated as a rule quite well in a man weighing 150 pounds. The therapeutic index of tryparsamide is about one-fourth that of arsphenamine. The parasitocidal activity of the former is definitely less than the latter, but its permeability for neural tissues is so much greater. This last point probably determines its great value in meta-leutic disord-

ers. We have been taught for several years that the spirochaeta become so thoroughly entrenched among the nerve cells and fibers, glia and connective tissues of the central nervous system, and taking in account the anatomy of the vascular system in these regions, that there is a comparatively poorer penetration for arsphenamine and mercurials.

Up to the present time we have been warned by those who have had clinical experiences with tryparsamide that we should guard the optic nerve and retina, and select our cases with some caution. A careful ophthalmological examination is indicated before beginning treatment with this new preparation. Here we should bear in mind that the chemical structure of tryparsamide is more closely related to atoxyl than arsphenamine. However, I believe that we can give cautiously this preparation in some cases with changes in the optic nerve and retina without a great deal of danger.

The average dosage of tryparsamide ranges from 1.5 to 3 grams, administered only by the intra-venous route, at intervals of 5 to 7 days, using from 6 to 15 treatments for a series. Even larger doses than 3 grams have been used. Mercurials or iodides have been given at the same time, but as a rule I prefer giving any drug for the treatment of syphilis in single courses.

In analyzing 22 of my cases of paresis, tabes and other types of syphilis of the central nervous system that have had 3 or more treatments and been under adequate observation, I can report 3 showing no improvement, 10 moderately improved, and unusually good results achieved in nine. I can report one of my cases of paresis in a very late stage, emaciated, with bed sores, helpless, with vicious hallucinations, noisy, soiler and with no speech which could be understood, who under 18 weekly treatments of 3 gram doses of tryparsamide administered intra-venously has shown a remarkable improvement both mentally and physically. His bed sores healed and his nutrition returned to normal. He can now dress himself and take care of his toilet functions. His memory has improved greatly. He is much more quiet and orderly. His speech has improved so that he can be understood readily.

Another interesting clinical case showing a remarkable improvement, and being under treatment and observation long enough to form some conclusions is ready

to be demonstrated. I wish to make a concise clinical presentation of Mr. X, 29 years old, divorced, and a coal miner, referred to my service at the Bell Memorial Hospital by Dr. H. E. Marchbanks, on April 11th, 1924.

His chief complaint at that time being poor memory, headache, backache, "very trembly and nervous" numbing and tingling of the right arm and leg. His family history was negative.

For his past history, the patient had an appendectomy and tonsillectomy in 1910, chronic cough and shortness of breath upon exertion for 7 years. He had a chancre about 6 years ago for which he received a series of "shots" and was dismissed as cured. Later, his hair began to fall out and he received more treatment. His condition seemed much improved and he felt better for a period of two years. By this time, the patient noticed that he could not enunciate distinctly, had some memory impairment, was not able to walk normally noticed some tingling and numbness over body and extremities, and occipital and frontal headaches, all now for 3 years.

His present illness covers the past year, during which time the patient had lost about fifteen pounds in weight. He complained of much weakness of the right arm and leg and left hand. He was very "nervous and trembly," become irritated easily, temper being almost uncontrollable. Lately, the patient had shooting pains in his back and legs.

Examination showed a patient whose general cerebral capacity was much impaired. Our attention was called especially to the poor memory and reason. He was somewhat euphoric, but revealed no definite hallucinations. Speech was characterized by marked word stumbling, tremor and memory defects, which was considered typically parietic. The pupils were equal, the left having an irregular outline. Both reacted sluggishly to light but normally to accommodation. Ophthalmic examination of the eyes showed a thinning of the choroid, blood vessels being plainly seen through the retina. There was blurring of the optic discs all around, but no swelling, probably from a previous neuro-retinitis. The right side was less involved than the left. Movements of the facial muscles exhibited much fibrillary tremor. The tongue protruded to the left with a coarse fibrillary tremor. The patellar reflexes were found exaggerated, the left greater than the right. There

was a bilateral ankle clonus. Babinski was negative. Some dysdiadococinesia was present. Rhomberg sign was positive. There was much incoordination of voluntary movements. Peculiar anesthetic areas over abdomen, thigh and buttocks were observed. A systolic murmur was heard at apex.

Treatment during the first period in the Hospital included two lumbar punctures, 8 intra-venous injections of tryparsamide, 2 to 3 gram doses, 4 mercury salicylate intramuscular injections, 0.6 grams each.

SEROLOGICAL

Several four plus positive blood Wassermanns are on record. My first spinal fluid examination revealed a pressure of 220-mm. water pressure. A lymphocyte count of 104, Pandy positive, Wassermann four plus, goldsol 2555532100. A later spinal fluid examination showed a pressure of 220 mm., water pressure, cell count 13, Pandy slightly positive, Wassermann two plus, and gold chloride 4555310000.

The progress of the patient's condition was quite rapid and most favorable; in that his mental state was remarkably improved, his physical condition, too, much better, leaving the patient capable of returning to his work. The areas of anesthesia disappeared after the lumbar punctures.

Patient was discharged from the hospital after forty-three days with a diagnosis of paresis, a beginning optic atrophy, and very early tabes dorsalis. The patient purposely avoided giving us information about an increasing amblyopia for a period of two weeks, he feeling such a rapid improvement, and that we might stop the tryparsamide if this data should be in our hands. This caused us to stop abruptly the injections and send the patient home.

Following our advice and that of his physician, the patient was readmitted for a second course of treatment, on October 1st, 1924. He had been working and had no subjective complaints relative to his physical or neurological conditions.

Examination revealed that all deep reflexes were increased, but to a much lesser degree than at the time of the first admission. Babinski and Rhomberg were mildly positive. An eye examination showed the left pupil larger than the right, both sluggish to react to light. The left pupil was irregular. Optic atrophy of a mild degree was seen in both discs.

Treatment after second admission to the Hospital included 2 lumbar punctures and

7 intra-venous injections of tryparsamide of 2 to 2½ grams each. The first serological examination showed a pressure of 300 mm., water pressure, cell count of 10, Pandey mildly positive, and Wassermann negative. The second spinal fluid showed pressure of 300 mm., water pressure, cell count 4, Pandey and Wassermann negative.

Patient was discharged on November 14th, 1924, after 44 days in the Hospital. He may be considered as a restored case, but occasionally should be under medical supervision and possible future anti-luetic treatments for a very long time before being pronounced permanently cured.

SUMMARY

This patient has shown remarkable results in both the clinical manifestations and the serological findings. However, all patients do not respond quite so well. Another interesting feature to which I wish to call your particular attention are the eye ground findings at the time the patient entered the Hospital, the mild deception which the patient practiced in order to continue the treatment which to him was producing a restoration, and the second series of treatments which we administered despite the mild optic atrophy known to be present. Undoubtedly the most important thing to watch for, before and during the treatment, are the eye conditions and possible oncoming or increasing amblyopia.

During the past few years a large number of chemicals or methods have been proposed for the treatment of neuro-syphilis and given adequate clinical trials. But in spite of these, critical clinicians have not been satisfied. Therefore the continued search for more powerful spirochaetocides and such preparations as will produce a minimum amount of irritation or destruction of the tissue of the host which have been invaded by the treponema. I believe it is yet too early to estimate definitely the full value of tryparsamide. I do believe it is superior to any other chemical advanced for the treatment of paresis, tabes, and other types of late neuro-syphilis. Further clinical experiences will be required to determine its proper position among our many therapeutic preparations used in treating syphilis of the central nervous system. Again I wish to admonish that we are as yet not fully conversant with the possible dangers for the retina and optic nerves. We should continue to use as in the past many

other measures in caring for paresis and tabes besides a spirochaetocide.

—R—

A Practical Danger in the Use of Insulin by the Patient at Home

When insulin was first introduced, Robert S. Berghoff, Chicago (*Journal A.M.A.*, Oct. 25, 1924), recalls, it was deemed advisable that its administration be begun with the patient under hospital supervision. When insulin therapy is prolonged indefinitely, its administration by the patient himself becomes necessary. We have felt safe in assuring our patients who possess urine sugar in appreciable amount that its entire absence on a given diet and set insulin dosage bespeaks a corresponding satisfactory blood sugar level, and calls for at least a temporary cessation of insulin therapy. In fact, we had almost accredited insulin with a gradual resumption of carbohydrate tolerance. However, at first sporadically, and of late, regularly, we have been impressed with the undeniable fact that after a more or less continued course of insulin the blood sugar threshold rises appreciably. This rise of the blood sugar threshold is of significant importance to the patient, robbing him of his only check, and lulling him into a sense of false security. If, for example, before the initial use of insulin, a patient's blood sugar threshold is determined at from 0.150, at which point sugar appears in the urine, it has been our common observation that the use of insulin soon raises those figures materially, in some instances more than 0.50 point. The practical significance is obvious. If patients are to be entrusted with the home use of insulin, a rough check on their status is essential. A daily blood sugar test is not practical. In the past, we relied on a daily urine sugar estimation to afford that information. In view of the recent gross discrepancies, however, between blood and urine sugar levels, that would seem unsatisfactory.

—R—

The negro soldier on the chain gang was asked by a passerby, "Well, Sam, what are you here for?"

"Ah went on a furlong, sah!"

"You mean you went on a furlough."

"No, boss, it was a sho-nuff furlong. I went too fur and stayed too long."

—R—

"Who bobs a hair of yon gray head dies like a dog, *Mah Jongg!*" he said.

THE JOURNAL

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W. E. McVEY, M.D. - - Editor

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EMERGENCY MEASURES

The fate of the Medical School depends upon you—upon your attitude, your influence and your efforts. Do not permit the main issue, which is an adequate appropriation to complete the plant already begun at Rosedale, to be side tracked by such questions as who shall be dean and who shall be chancellor. These are matters of temporary concern at the most, while the completion of the plant so that the work of medical instruction and medical research may be carried on with credit to the profession and to the state is a matter of permanent importance.

The problem of the organization of the faculty of the school, the adjustment of the present contention between the Chancellor and the Board of Administration, and the suggested relocation of the medical school, are matters of much importance it is true, but unless appropriations are made for the completion of the plant, they become insignificant. It is well known that the new building is entirely inadequate, that it is too far from the old buildings to be used in conjunction with them.

It is important that the medical school should be consolidated, but the Board

recommends that no appropriation for new buildings be made until it is consolidated either at Rosedale or Lawrence. It cannot be consolidated at Rosedale until buildings have been completed in which to care for the additional classes and to house the additional laboratories. It has never seemed feasible to locate the medical school at Lawrence where the same requirement of new buildings would have to be considered.

The result of these issues, if not their purpose, will be to divert us from the main issue.

There are sixteen hundred members of the Society, they are fairly well distributed over the state, they are representative citizens and have sufficient influence with their patrons and neighbors and friends to create a pretty strong sentiment in favor of the medical school. If every member of the Society will talk with, or write to, the men who represent him in the House and Senate and get his patrons and friends to write to them on behalf of the school, the Legislature which is now in session will make whatever appropriation will be required to complete the plant.

The statement was recently made that only those who were graduates of the school would support a movement of this kind. Such a statement is ridiculous. The medical school does not belong to the graduates alone, it does not belong to the medical profession, but to the people of Kansas. Every member of the medical profession, however, is concerned in its present standing and in its future development. It means much to every member of the profession whether one of its alumni or not, and naturally means more to us than to other people. We cannot expect enthusiastic support for it unless we exhibit some enthusiasm ourselves.

At least on two occasions appropriations for the medical school have failed because of apparent lack of interest by the medical profession. Under the present conditions it is a forgone conclusion that no appropriation for new buildings at Rosedale will be

made unless an appeal and a very strong appeal come from the doctors.

About twenty years ago the people of Kansas through their representatives decided that the state should have a medical school as a department of its university. The medical profession of the state did not at that time appear to be seriously concerned, in fact there was much difference of opinion concerning the desirability or need for such an institution.

The school was established at Rosedale and for a number of years the profession maintained an attitude of indifference that was not particularly encouraging and was at times interpreted as antagonistic. After a number of years of effort had shown little progress in its development the then chancellor announced that the school was a failure and called a conference to determine if it should be moved and if so where. There was no very unanimous opinion on this point, and it was thought best to leave it at Rosedale. It seemed then that the matter of location had been definitely and permanently settled. After some years it was discovered by the university authorities, what every body else had long known, that the site, upon which the school had been built was both inadequate and unsuited for further development of a medical school plant. The question of moving the school from Rosedale, however, was not seriously considered.

The purchase of a new site in Rosedale and the erection of a \$400,000 building seemed to have still more definitely determined the permanency of the Rosedale location. And not until the recent airing of the difficulties between the Board of Administration and the Chancellor has it been known that any further change in location was proposed.

After some years of indifference the profession began to appreciate the fact that Kansas had a worth while medical school; that its work was favorably regarded by medical educators of high standing; that the men on its faculty were more and more

frequently mentioned as authorities in their various lines of research; that its graduates were in considerable demand for desirable positions in the schools and hospitals of the East. The medical profession of Kansas has had reason to be proud of the recent progress of its medical school; and with the new site and the new building had reason to look hopefully forward to the completion of a plant that would afford the necessary facilities for teaching medicine as it should be taught.

Those who most strenuously opposed the Rosedale location, that are still members of the profession, have mostly submerged their prejudices on this point in an unselfish interest in the development of a creditable institution, and have long ago reconciled themselves to what appeared to be inevitable.

It is important, of course, that the medical department of the university should be consolidated but it is doubtful if any considerable number of members of the medical profession would favor any change in location now. The department can as easily be consolidated at Rosedale as at Lawrence if adequate buildings are provided.

—B—

DR. HUFFMAN ON THE BOARD OF ADMINISTRATION

Just as we go to press it has been announced that Governor Paulen has appointed Dr. Chas. S. Huffman a member of the Board of Administration. There could be no better evidence of the Governor's excellent judgment and his intention to administer the affairs of the state for the best interests of the people than this appointment.

As has several times been said in these columns, there is no place where a physician can render more important service to the state than on this board under the control of which are all of the state's hospitals.

No man in the profession of Kansas is better fitted for this position than Dr. Huffman. His long experience as a general practitioner and particularly his experience in legislative affairs render him

especially qualified for the duties he will assume.

One may also say without any hesitancy that the appointment of Dr. Huffman to this position will have the unanimous approval of the medical profession of Kansas.

—R— CHIPS

The apple theory of sin entering into the world is given up since it has been learned that it was the pair that did it.

A sciosophist is a doctor or scientist who thinks without knowledge.

Verbal vitamins are the hygienic psychic therapeutics of the faith healer.

A ham is cured by smoking. Why does smoking not cure the smoker?

Why cannot a man run through poverty like he can through riches?

Girth control is a new fad advocated now. If your belly band is longer than your chest band you are on the downward toboggan and should put the brakes on.

In reading the new practice of medicine in the treatment of pneumonia, it sounds like a discussion in a medical society a quarter of a century ago. But, why not? The mortality is as great now as at was then.

Recent census reports show that there were 1842 deaths from cancer in Kansas in 1923 as against 1425 in 1922, a rate of 72.1 in 1923 and 69.6 per 100,000 in 1922. There were 111 deaths from typhoid fever in 1923 and 110 in 1922; a rate of 6.3 per 100,000 against 6.2 in 1922. The mortality rate for tuberculosis in Kansas in 1923 is 44.6 per 100,000. There were 318 deaths from diabetes in 1923 against 356 in 1922; an adjusted rate of 15.8 per 100,000 against 17.7 per 100,000 in 1922.

The sodium salt of a dibasic dye, tetrabromphenolphthalein, tetrabromphenolphthalein sodium is used for the roentgenologic examination of the gall bladder. Following intravenous injection the substance appears in the gall bladder in sufficient concentration to cast a shadow to the roentgen ray. After injection, some of the patients may have unpleasant symptoms such as dizziness, nausea, various body pains, and fall in blood pressure. The use of tetrabromphenolphthalein sodium is still in the experimental stage and workers are cautioned as to the selection of types of cases in which it is indicated and its possible toxicity in large doses. To visualize the gall bladder, 4.5 to 5 gm. is sufficient

for a patient weighing 125 pounds or more, and should be reduced for patients weighing less. (*Journal A. M. A.*, Dec. 27, 1924.)

On November 15, 1924, the president, following the unanimous recommendations of the United States tariff commission, proclaimed that "to encourage industries in the United States, and for other purposes" the duty on diethylbarbituric acid and its salts, known as Barbital and Barbitol-Sodium in this country, and which are chemically identical with Veronal and Veronal-Sodium, be computed upon the American valuation instead of the foreign valuation. This is the first action of the president under the flexible tariff provision approved by congress in 1922, in which the principle of American valuation has been put into effect.

In New York two clinics were established by the Health Commissioner to determine the efficiency of chlorin inhalations in the treatment of respiratory diseases. These clinics began active work June 1. They continued in operation until August 1, when they were closed because the results were considered unsatisfactory. It is reported that only 6.5 per cent of 506 persons with various respiratory diseases reported themselves as cured. Fifty-three per cent of the patients reported improvement, but the physicians in charge do not attach much importance to such reports since it is well known that patients with minor respiratory infections tend to improve by the very nature of their disease. It is evident that the physician who uses the chlorin treatment in his practice, must do so with the distinct understanding that he is using an unestablished method. (*Journal A. M. A.*, Dec. 6, 1924.)

The Council on Pharmacy and Chemistry reports on the therapeutic status of Benzyl compounds. It was shown a few years ago that the papaverine group of opium alkaloids caused relaxation and inhibition of smooth muscle fibre and it was suggested that this action was dependent on the benzyl grouping in the papaverine molecule. This suggestion that possibly the same action might be secured from simpler benzyl compounds, and a number of benzyl esters were investigated. Soon the use of benzyl esters in medicine gained considerable vogue. They have been recommended in hypertension, asthma, angina, dysmenorrhea, biliary and renal colic and similar disorders. The council finds that extensive clinical use does not confirm the enthusiastic estimate of the early advocates. An inquiry addressed to a number of clinicians disclosed an almost unanimous opinion against the value of these prep-

arations so far as most of the recommended uses are concerned. None had seen any action whatsoever in hypertension, nor had the blood pressure been lowered. None of the consultants had seen any effects from the use of benzyl esters in asthma, or in renal or biliary colic. Benzyl esters had apparently given relief in a certain number of cases of dysmenorrhea. A small percentage of patients with angina pectoris appeared to have been benefited by their use; also a few cases of intestinal colic, which might be explained by a carminative action. (*Journal A. M. A.*, Dec. 6, 1924.)

Hardly a year passes but that the announcement is made of some new method of treating tuberculosis. The most recent method to receive sensational publicity duly accorded any venture in the treatment of tuberculosis, is a preparation of gold advanced in Denmark under the name "Sanocrysin." At a meeting of physicians in Denmark, Professor Moellgaard, the originator of the remedy, described its production and its effects. Other physicians gave an account of their results with the treatment. Several deaths from the remedy were reported. It is stated that Professor Moellgaard was the most cautious of all who spoke. (*Jour. A. M. A.*, Dec. 13, '24.)

No black hair dye can be considered safe and not injurious. Every chemical used for dying the hair black is a potential trouble maker. Some individuals who are not sensitized, may even use paraphenyldiamin for long periods without causing any disturbance, whereas others cannot use silver nitrate or pyrogallie acid. These facts should be given to the public and the user should assume the responsibility for the dermatitis which may follow. A person's sensitiveness to a given dye may be determined by its application to a covered portion of the body. (*Jour. A. M. A.*, Dec. 13, '24.)

The Council on Pharmacy and Chemistry reports that for some years it has been viewing the claims for the therapeutic value of valerian and valerian preparations and substitutes with increasing skepticism. During the period 1915 to 1921, the Council questioned the claims made for a number of proprietary valerian preparations then in New and Nonofficial Remedies. In the end these products were omitted because they were off the market. Valerian has been retained in Useful Drugs because it is used to a considerable extent. This use, however, appears to be based on tradition. The Council reached the conclusion that there is no acceptable evidence for the therapeutic usefulness of valerian or the valerian substitutes now on the

market. It, therefore, decided (1) to omit valerian from Useful Drugs; (2) to omit the general article "Valerianic Esters" along with amyl valerate (the only preparation now in the book) from New and Non-official Remedies, and (3) to admit to New and Nonofficial Remedies no preparation which depends on valerian or its constituents unless satisfactory new evidence for its therapeutic value is submitted. (*Jour. A. M. A.*, Dec. 13, '24.)

B SOCIETIES

RENO COUNTY MEDICAL SOCIETY

The annual election of officers of the Reno County Medical Society was held following dinner at the Hotel Stamey. The following officers were elected:

President—H. M. Stewart, M. D.

Vice President—C. A. Mann, M. D.

Secretary and Treasurer—Louise F. Richbond, M. D.

Delegates to State Meeting—J. J. Brownlee, M. D. and H. J. Duvall, M. D.

Dr. Thor J. Jager of Wichita then read a paper on "Brain Tumors." After a general discussion the meeting adjourned. Meetings will now be held the second Tuesday of each month.

LOUISE E. RICHMOND, M. D.,
Secretary.

SUMNER COUNTY MEDICAL SOCIETY

The members of the Sumner County Society entertained the members of the Sedgwick County Society at a turkey dinner at Park House, Wellington, on December 11th.

After the dinner the following program was given:

Shakespeare's Doctors—Dr. E. D. Ebright.

Discussion led by Drs. Bartlett and Thompson.

The Mechanism of Cardiac Irregularity—Dr. H. Tihen.

Discussion led by Dr. E. T. Erickson.

Anterior Branch of the Middle Meningeal Artery; its Anatomical Tunnel and Surgical Importance.

Discussion led by Drs. Vandeventer and Hatcher.

T. H. JAMISON, M. D.,
Secretary.

CENTRAL KANSAS MEDICAL SOCIETY

The quarterly meeting of the Central Kansas Medical Society was held in the Masonic Hall at Ellis, Kansas, Thursday, December the 11th, 1924. This meeting was of unusual interest to the society as it is

the first time that the society has ever met at Ellis.

The president, Dr. Stoner, called the meeting to order at 2:30. At his suggestion the business meeting was postponed until the evening session.

The program was as follows:

"Induction of Labor at Term"—Dr. M. A. Hanna, Kansas City Mo. Dr. Hanna brought out that an induction of labor at term was not a hard procedure and that you can by doing same save the mother going over a month or so with the resultant oversize baby and long drawn out labor.

"Care of Newly Born Infant"—Dr. Frank C. Neff, Kansas City, Mo. Dr. Neff made this a very interesting paper and sent point home that will be of great benefit to the general practitioner.

"Treatment of Acute Mastoiditis"—Dr. T. E. Beyer, Denver, Colo. Dr. Beyer advises that along with your clinical or classical symptoms of acute mastoiditis that an x-ray picture of both mastoids is a very helpful guide as to the exact condition.

At this time a clinic was held by Dr. Neff which was very interesting due to the large variety of cases that Drs. Stoner and Paige had worked up and had ready to present to the meeting.

The president called a recess of thirty minutes in preparation for the evening banquet which was served by the ladies of the Methodist Church Guild. The doctors of Ellis were the hosts and following a wonderful turkey dinner Dr. Stoner as toastmaster called on several of the visiting doctors for short talks. The members of the Auxiliary to the Central Kansas Medical Society were also present at the banquet. Following the banquet the members and guests of the society were entertained by local talent.

The evening program was as follows:

"The Pharmacist and the Physician."—J. Will Kelly, Topeka, Kans.

"Ectopic Pregnancy"—Dr. M. J. Owens, Kansas City, Mo. Dr. Owens read a very interesting paper on ectopic pregnancy and reported some 45 cases that he had had in the last fifteen years. He advises the surgeons to wait for the patient to pick up from the shock of the hemorrhage before surgical interference.

Following Dr. Owens' paper Dr. Hanna gave a short paper with lantern slide demonstration of "Vaginal Cesarean Section." Dr. Neff also gave a short talk and lantern slide

illustration of the method and statistics of use of toxin-antitoxin.

The president then called on Dr. F. A. Carmichael of Osawatomie, who was an honored visitor at the meeting and gave a talk on "Post Febrile Delirium." His talk was very interesting to all present.

The following officers were elected for the year 1925:

President—J. B. Carter, Wilson.

Vice President—C. H. Jameson, Hays.

Secretary and Treasurer—H. St. Clair O'Donnell, Ellsworth.

Censor for three years—Dr. Meade, Hays.

Delegates to the state convention—C. H. Jameson, Hays; J. B. Carter, Wilson.

The following resolution was read and by motion adopted: Any member practicing the methods of any cults or who counsels with or who is professionally associated with any person practicing the methods of any cult not recognized by or taught in standardized medical colleges, who refuses to discard such methods of practice, or such associations, shall be expelled from the membership of the society.

Dr. F. K. Meade of Hays invited the society to meet at Hays in March. The invitation was accepted.

Following a motion for a standing vote of appreciation to the visiting doctors on the program and to local doctors of Ellis for the splendid program and entertainment that they provided, the meeting adjourned.

LEO V. TURGEON,
Secretary.

THE GOLDEN BELT SOCIETY

The quarterly meeting of the Golden Belt Society was held in Salina, Thursday, January 8. The following program was presented:

"Theories of the Cause of Cancer."—O. R. Brittain, Salina.

"The Early Recognition of Interstitial Nephritis."—J. D. Colt, St., Manhattan.

"Syphilis and the Necessity for its Control."—Dr. E. G. Brown, Topeka.

"Some recent experiments with Intestinal Obstruction."—M. T. Sudler, Lawrence.

In the evening the visiting doctors and their ladies were entertained at dinner and an entertainment at the Lamar Hotel.

SHAWNEE COUNTY SOCIETY

The regular monthly meeting of the Shawnee County Medical Society was held at the University Club Monday evening,

January 5. There was a large attendance. The program consisted of a symposium on the thyroid gland. The following subjects were discussed:

Diagnosis and Classification of Thyroid Disease.—Dr. J. L. Lattimore.

Cardio Vascular Phenomena of Thyroid Disease.—Dr. J. G. Stewart.

Tuberculosis and the Thyroid Gland.—Dr. F. L. Loveland.

Nervous Symptoms and Psychotherapy of Exophthalmic Goitre.—Dr. C. R. Doyne.

Medical Treatment in Thyroid Disease.—Dr. C. A. McGuire.

Electricity, Radium and X-ray Therapy in Thyroid Disease.—Dr. G. A. Finney.

Surgical Treatment in Thyroid Disease.—Dr. M. B. Miller.

Thyroid and Other Endocrine Glands.—Dr. C. F. Menninger.

EARLE G. BROWN,
Secretary.

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Reflections

BY THE PRODIGAL

In the November number of this Journal under the title, "Some Things We Have Learned," criminologists were said to be "investigators of crime." It should have read, "Criminologists are instigators of crime." Criminologists, as a class, are no worse and they are no better than other people who have the same opportunity of doing good and of doing evil. It is the failure to make good when the opportunity offers, by a man or a profession for the dealing out of justice and for the benefit of society by protecting it from injustice and the destruction of life and property, that the criminologist is measured. The official measuring stick used by society in determining the value of a criminologist, is the testimony of judges and juries in courts of law, when the criminologist testifies as to the sanity or insanity of the man who has committed the offense: And it matters not how heinous the crime the array of criminologists on the side of the prosecution and of the defense is about equal.

The reason given for this paradoxical array is said to be chromatic aberration, that is, colors, the yellow and the long green. However, they are synthetic and not fast colors. They fade and the standing and influence of the criminologist and of the expert in medicine has faded and is fading out. One reason for the growing disrespect for expert medical testimony in courts of criminal law is the innate weak-

ness of the human to temptation for what he wants—said to be inherited from Father Adam. Another reason is infallibility in judgment.

Still another and probably as great weakness as the other two combined, the crudeness of a law permitting or allowing testimony given by an expert who is paid, especially to give the testimony when interested by a money consideration. A law should be and can be enacted to employ expert testimony where needed for the information of the court (judge and jury) scientifically cold blooded and with the facts presented as found; the expert witness to be paid by the state. This would insure as near unbiased facts in a case at law as finite man could get and the medical expert would not be under the strain of testimony and he would be relieved from the suspicion of perjury and thus be enabled to expend all of his energy, undivided and unhampered, in getting at the truth.

Group practice in medicine is institutional medicine in its nonage. There is a difference there like that between a pig and a hog, viz., growth. The practice has grown out of environment and to meet the demand of a more enlightened age.

The cause of the change was congestion of population and a growing intelligent desire on the part of the medical fraternity for the better care and treatment of the sick and injured, also for a time and labor saver to the physician in having his work centered: and for the help he might get by organization and the division of work by specialists. Such grouping or organization favors a more accurate diagnosis, and a division of responsibility in case of death of the patient—a kind of mental insurance and moral prop to the doctor's stamina. Group and institution practice in medicine is not ideal practice. Neither is institutional charity or religion. But it is a way to serve the sick and injured and to do the most good, with our present knowledge, to the greatest number of people, with the least effort on the part of the medical man.

It relieves, also, the home of the burden of care and of danger to the family incident to the diseased person.

There seems to be no unmixed good or liability to loss, neglect or pitfall the doctor has to guard against in the evolutionary change for the better in his practice and for his patient. There are several pitfalls into which he is liable to fall. Division of

responsibility is liable to lessen the doctors vital, undivided, personal interest in his patient. Being in a group may overshadow his personality with the patient. He must double his diligence in study, research and investigation to keep up with the bunch, or fall back and become a negligible entity. It tends to weaken his initiative, to restrict his general knowledge of diseases, to limit his work and interest and to make him a less worth while all round physician.

When a man gets sick now and cannot be taken to a hospital, in order to diagnose his ailment and treat him scientifically, not necessarily successfully, it requires the service of a score, or less, of specialists together to make up an all round doctor to diagnose a case of disease. When they congregate in the sick room, it reminds one of the old fashioned prayer meeting. When one of the so called higher-ups get sick and the specialists congregate the array scares the patient and death usually follows from shock.

However, it is the way medicine is practiced now, and will be until a better plan or method of treating the sick and injured is put on the market.

INTER-STATE CLINIC TOUR

The clinics and demonstrations connected with this tour will include all the different branches and specialties of medical science. It will be our utmost endeavor to see that every branch of medicine receives the same consideration on the program. This announcement is only an early synopsis of the good things that are in store for the American physicians and does not, in any way represent the complete program of the tour, therefore, if you do not find the branch of medicine in which you are interested, represented in this report, you can rest assured that it will receive it's proper importance on the program.

May 17.—Tour starts from Chicago by special trains. Physicians living in territory where it will be more convenient to go direct to Toronto will be provided with transportation direct to this city in time for the clinics beginning May 18.

May 18, 19—Toronto. We spend May 18 and 19 as the guests of the teaching staff of the Toronto University, Faculty of Medicine. Special clinics will be arranged covering the different branches of medical science by this institution.

May 20.—Trip through the Thousand Islands and the St. Lawrence Rapids.

May 21, 22.—Montreal.—We spend May 21 and 22 as the guests of the teaching staff of McGill University, Faculty of Medicine. The clinics in Montreal are in charge of this institution. Those who wish to join the tour at Montreal on the evening of May 22, receive a reduction of \$110.00 from the price of the tour.

May 23.—Early A. M. sail for Liverpool, arriving in that city May 31st.

SHIP PROGRAM

An intensive professional trans-Atlantic program for the benefit of the physicians who are taking advantage of the tour will take place on board ship and will be contributed to by some of America's most distinguished physicians and surgeons.

June 1 to 7, the time is spent in London. The clinic arrangements in this city are under the direction of the Honorary Organizer, Mr. Philip Franklin, Honorary Secretary of the Laryngological section of the Royal Society of Medicine and Medical Director of the American Hospital, London; Sir Humphry Rolleston, Bt.; Sir John Bland Sutton, President of the Royal College of Surgeons; Sir William Arbuthnot Lane, Bt.; Sir St. Clair Thomson, President of the Royal Society of Medicine; Sir William Hale White, Retiring President of the Royal Society of Medicine; Mr. H. I. Waring, Vice-Chancellor of the University of London and Mr. W. Girling Ball.

Special social features of the London program will include the conferring of the honorary membership of the association upon H. R. H. Duke of York at the opening ceremony, which will be held at Barnes Hall, Royal Society of Medicine and the conferring of Honorary Memberships upon the Prime Minister, the Rt. Hon. Stanley Baldwin; the Minister of Foreign Affairs, Rt. Hon. Austen Chamberlain; the Minister of Health, Rt. Hon. Neville Chamberlain; Sir Auckland Geddes; the American Ambassador; the Lord Mayor of London, Sir Humphry Rolleston, Bt., President of Royal College of Physicians; Sir John Bland Sutton, President of the Royal College of Surgeons and Sir St. Clair Thomson, President of Royal Society of Medicine.

Receptions and luncheons will be given by the Lord Mayor of London, the Presidents of the Royal Societies of Medicine and Surgery, the English-Speaking Union, the Pilgrims' Society, American Chamber of Commerce and members of the British government.

Intensive professional programs will be

carried on at all the leading hospitals of London and at the headquarters of the Association, which will be at the home of the Royal College of Medicine, 1 Wimpole Street.

June 8, 9, 10, the party is to be divided and alternated among the clinics of Liverpool, Manchester and Leeds.

At Liverpool the physicians will be the guests of the staffs of all the large hospitals of that city under the direction of Sir Robert Jones, R. E. Kelly and colleagues. Clinic arrangements are now in formation.

At Manchester the clinic group will be the guests of the staff of the Royal Infirmary. Sir William Milligan and associates are arranging the clinics.

At Leeds the physicians will be the guests of the University of Leeds. Clinic arrangements are in charge of Sir Berkeley Moynihan and associates.

June 11, 12.—Dublin.—The American physicians will travel to Dublin, where arrangements are under the general management of Sir William DeCourcy Wheeler, Sir William Taylor, Sir Arthur Ball, Sir Robert Woods and their colleagues. All the Irish members of the Association of Surgeons of Great Britain and Ireland will cooperate in forming the program for the American physicians.

June 13, 14, 15.—Belfast.—From Dublin the physicians go to Belfast. Here they are the guests of the teaching staff of Queen's University. The following committee of arrangements have been appointed and accepted to arrange clinics and demonstrations:

Prof. Andrew Fullerton, Mr. Thomas Sinclair, Prof. W. W. D. Thomas, Prof. R. J. Johnstone, Prof. C. G. Lowry, Prof. J. E. MacIllwaine, Dr. A. J. Craig, Dr. H. Hanna, Prof. Symmers, Dr. Thomas Houston and Dr. S. Boyd Campbell.

In presenting the clinics and demonstrations the teaching staff of Queen's University will be associated with that of the Royal Victoria Hospital.

June 16, 17—Glasgow.—From Belfast we continue to Glasgow, where the clinics are now being arranged by Mr. Farquhar Macrae, Mr. J. H. Pringle, Dr. Findlay Cowan and Dr. John Patrick and their colleagues. On these dates excursions will be run to Ayr for families of the doctors and their friends.

June 18, 19.—Edinburgh.—Here the American physicians will be the guests of the Royal Infirmary of Edinburgh under

the direction of Sir Harold Stiles, Sir Norman Walker, Sir Robert Philip and associates on the staff of the Royal Infirmary. A very excellent program is being arranged here.

June 20.—Newcastle and University of Durham.—Clinics will be held by the Honorary Staffs of the Newcastle-upon-Tyne Royal Infirmary and the Princess Mary Maternity Hospital, Pensions Hospital, Children's Hospital and some of the special hospitals of the city. The arrangements here will be in charge of Sir Rutherford Morrison, Mr. George Grey Turner, F. R. C. S., and other members of the staffs of the hospitals and clinics of this city.

Demonstrations will be given at the University of Durham College of Medicine (which is located in Newcastle-upon-Tyne) and probably at Armstrong College.

June 21 to 27.—Paris.—June 21 the entire party will leave for Paris, via London.

June 22 to 27, the time will be spent in Paris. The clinic arrangements are under the direction of a large number of the most eminent members of the profession both medical and surgical, including Professors Tuffier, Drs. De Martell, Gosset and Delbert in surgery, Drs. Sebilean de Fourmentel and Lermoye in Oto-Rhino-Laryngologie, Drs. Vidal, Chauffard, Sergent, Levaditi and Martin in medicine and Prof. Morax and Oelapersonne in ophthalmologie.

Headquarters for the American physicians will be at the Franco-American Club, Champs Elysee, where the physicians will be entertained by our hosts. General information and programs of the clinics will be given out here.

Among the numerous social functions of Paris are the following: A reception given on June 22nd by the Academy of Medicine; a large reception given in honor of the American physicians by the Municipal Council of Paris at the Hotel de Ville (City Hall); an evening reception by the Inter-Allied Assembly and a reception by Prof. Tuffier at his country home, which is located near Versailles.

Honorary Memberships will be conferred upon distinguished Statesmen, Soldiers and citizens of France.

Besides the clinics and social features, there will be wonderful travel features.

Paris will be the end of the regular tour, but there will also be a sailing home a week later allowing the American physicians, their families and friends to stay a longer time in Paris with more extensive

sight-seeing and giving the physicians the opportunity to attend the clinics at Strasbourg and Lyon where elaborate clinics are now being prepared for their benefit. This part of the tour will be given at the lowest possible cost in addition to the regular tour.

Prices

	Chicago to Chicago	Montreal to Montreal or New York
(c) with first class, high grade hotels and cabin ocean passages	\$990.00	\$880.00
(b) with first class, medium grade hotels and cabin ocean passages -----	910.00	800.00
(a) with moderate priced hotels and third-class ocean passages ----	750.00	640.00

The last classification is offered to doctors and medical students who are desirous of having the chance to avail themselves of the wonderful clinic opportunities of the tour. As this Association is purely an education institution and is working for the medical profession as a whole, the Board of Trustees decided at it's annual meeting that this class should be included.

EXTENSION TOURS

The opportunity will be given to the physicians subsequently to the main tour to visit practically all the main clinic centers of Europe, through extension tours, conducted by the Temple Tours of Boston under the direction of this office.

It is necessary in order to hold space for the tour to send to the office of the Managing-Director the sum of \$65.00 per person. If for any reasons the applicant for space decided that he cannot take the tour, the money will be refunded immediately, if this demand is made within six weeks of sailingtime. The reservations will be assigned and preference given on the ship and in the hotels in the order they are received, accompanied with check for \$65.00 per person.

This tour is open to members of the profession who are in good standing in their State or Provincial Societies and their families. No restriction of territory. This invitation is understood, to be extended to Canadian physicians as well as those of the United States. The Association will also be able to take care of a limited num-

ber of lay friends of the physicians. This is possible on account of their not requiring clinic space.

Members of the party who are specialists and who wish to devote their entire time abroad to their special work, will have the option of spending in London and Paris the time taken up by the tour to Northern England, Ireland and Scotland.

Clinics in all the special branches are being arranged by the management of the Inter-State Post Graduate Assembly expressly for these men to be held in London June 8 to 14 and in Paris, June 15 to 21.

For further information, write Dr. William B. Peck, Freeport, Illinois.

OFFICERS OF THE TOUR

President—Dr. Charles H. Mayo, Rochester, Minnesota.

Chairman of the Orientation Committee—Dr. Addison C. Page, Des Moines, Iowa.

Director of the Tour—Dr. William B. Peck, Freeport, Illinois.

Secretary—Dr. Edwin Henes, Jr., Milwaukee, Wisconsin.

AMERICAN ADVISORY COMMITTEE ON CLINIC ARRANGEMENTS

Dr. William J. Mayo, Mayo Clinic, President of Clinics, Rochester, Minnesota.

Dr. Edward William Archibald, Prof. of Surgery, McGill University, Faculty of Medicine, Montreal, Canada.

Dr. Walter W. Chipman, Prof. of Obstetrics and gynecology, McGill University, Faculty of Medicine, Montreal, Canada.

Dr. George W. Crile, Prof. of Surgery, Western Reserve University, School of Medicine, Cleveland, Ohio.

Dr. John B. Deaver, Prof. of Surgery, University of Pennsylvania, School of Medicine, Philadelphia, Pa.

Dr. John M. T. Finney, Prof. of Surgery, Johns Hopkins University, Medical Department, Baltimore, Md.

Dr. Duncan A. L. Graham, Prof. of Medicine and Clinical Medicine, University of Toronto, Faculty of Medicine, Toronto, Canada.

Dr. Allen B. Kanavel, Prof. of Surgery, Northwestern University, School of Medicine, Chicago, Illinois.

Dr. Charles F. Martin, Prof. of Medicine, McGill University, Faculty of Medicine, Montreal, Canada.

Dr. Charles H. Mayo, Mayo Clinic, Rochester, Minnesota.

Dr. Alexander Primrose, Dean and Prof.

of Clinical Surgery, University of Toronto, Faculty of Medicine, Toronto, Canada.

Dr. Clarence L. Starr, Prof. of Surgery, University of Toronto, Faculty of Medicine, Toronto, Canada.

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MEDICAL SCHOOL NOTES

Chancellor E. H. Lindley gave a very interesting talk on the problems of medical education at the last Hospital Staff Meeting. Dr. Lindley has recently visited several of the largest medical schools and studied their methods. He reported his observations and pointed out in a general way what changes may be expected.

Dr. T. G. Orr was elected vice-president of the Western Surgical Association at its recent meeting in French Lick Springs.

Several members of the faculty read papers at the annual meeting of the American Radiological Society held in Kansas City.

Original research work carried on at the medical school in the past year has received widespread favorable comment. The work on intestinal obstruction has been referred to frequently in the literature and the annual yearbook of surgery carried a long abstract of it.

The studies on the relation of methyl guanidine to arterial hypertension have created international interest. The work has received very favorable comment in editorials in the Australian Medical Journal and in one of the best known German Medical Journals.

Dr. Joseph E. Welker '21 and Miss Rita Lee were married last month at the bride's home in Gilford, Connecticut.

Mr. John Winkler and Mr. Henry DeWolf of the senior class have received interne appointments at the Cleveland City Hospital for next year.

Dr. Walter Stephenson '23 of Edmond, Kansas, was a recent visitor at the medical school.

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The American Board of Otolaryngology.

The American Board of Otolaryngology was organized in Chicago on November 10. The following constitute the board of directors: Drs. Harris P. Mosher, Boston, president; Frank R. Spencer, Boulder, Colo., vice

president; Hanau W. Loeb, St. Louis, secretary and treasurer; Thomas E. Carmody, Denver; Joseph C. Beck, Chicago; Thomas H. Halstead, Syracuse, N. Y.; Robert C. Lynch, New Orleans; Burt R. Shurly, Detroit; Ross H. Skillern, Philadelphia; William P. Wherry, Omaha. The office of the Board is at 1402 South Grand Boulevard, St. Louis, Mo. The board comprises representatives of the five national otolaryngologic associations; the American Otological Society, the American Laryngological association, the American Laryngological, Rhinological and Otological Society, the American Academy of Ophthalmology and Otolaryngology and the Section of Laryngology, Otolaryngology and Rhinology of the American Medical association. The object of the association is to elevate the standard of otolaryngology, to familiarize the public with its aims and ideals, to protect the public against unqualified practitioners, to receive applications for examination in otolaryngology, to conduct examinations of such applicants, to issue certificates of qualification in otolaryngology and to perform such duties as will advance the cause of otolaryngology. The first examination will be held at the time of the meeting of the American Medical association.

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Annual Report of Surgeon General of the Public Health Service.

A document of very considerable public interest, the annual report of the Surgeon General of the Public Health Service for the fiscal year ended June 30, 1924, has been transmitted by the Secretary of the Treasury to Congress.

Surgeon General Cumming points out that there is an almost universal tendency towards a diminution of effort on the part of government health agencies, national, state and local, due to the necessity for economy in official business.

Considerable data are given with regard to a number of our common contagious diseases: diphtheria, for example showed a reduction during the calendar year 1923 as compared with the previous year. A very decided increase is noted in measles. In 1923, 45 states reported a total of 725,529 cases of this disease with 10,282 deaths as compared with 260,803 cases and 3,592 deaths in 1922. Little change is seen with regard to scarlet fever.

There was an increase of about 60 per cent in the number of cases of whooping cough with an increase from 4.4 deaths for every hundred cases to 5.5 deaths per hundred cases for the two years. This apparent increase in cases may be due to neglect in reporting milder cases. During the five years, 1917 to

1921 inclusive more than 53 per cent of the deaths from whooping cough were in children under one year of age and more than 93 per cent in children under five years of age. These facts emphasize the great importance of keeping young children away from this disease, if possible, as the chances of surviving an attack increase with the age of the child.

Forty-five States reported a total of 30,771 cases of smallpox showing that this disease is much more prevalent in the United States than in European countries. There are a few countries where there is a greater prevalence, among which are China and India. There is marked contrast in the amount of smallpox seen in the New England States as compared with the south, west and the middle west. In Massachusetts, for example, during the five years ended December 31, 1923 but 114 cases of smallpox were reported. In Michigan, during the same period, there were 15,384 cases while in California during that time, there was a total of 16,223 cases. These States have very nearly the same population.

Tuberculosis and typhoid fever continued to show some decline in both cases and death rates.

The general death rate was slightly higher in 1923 than in 1922 in 25 of the 36 States for which data are available. The highest general death rate 20.3 per thousand is shown for cities in Mississippi and the lowest, 6.5 per thousand, for the rural districts of Idaho. The death rate from all causes for 30 States for which reports are available was 12.3 per thousand population in 1923 as against 11.9 in 1922.

It is pointed out that the average length of human life in the sixteenth century was estimated to be between 18 and 20 years. At the close of the eighteenth century, it was still less than 25 years, and as late as 1900, it was between 45 and 48 years. Comparing with these figures, the present average length of life estimated at 56 years in the United States, it is recalled that approximately 15 years has been added to our span of life in this country since 1870.

All plague suppressive measures carried on by the Federal Government in States other than California had been suspended at the close of the fiscal year ended June 30, 1922. It has been necessary to continue operations on a small scale in certain counties in California on account of plague in ground squirrels, and Surgeon General Cumming states, that he has no doubt that under present conditions, this squirrel infection will continue for years to come. He warns that, "this reservoir of plague in the United States should

ever be kept in mind nor should our vigilance in maintaining squirrel free zones around rat infested cities in these infected communities be relaxed. One case of human plague, presumably infected in Monterey County, California, by ground squirrels was reported during the fiscal year and that eight plague ground squirrels had been found in San Luis Obispo county. These infected rodents by no means represent the extent of infection remaining."

It should be stated that the annual report from which these facts are taken was written some weeks before the outbreak of pneumonic plague in Los Angeles.

There was no importation of exotic disease during the year with the exception of a few cases of typhus fever that may have entered surreptitiously by way of the southern border of the United States.

The Marine Hospitals of the Public Health Service (including contract hospitals) furnished during the year 1,232,754 patient-days hospital treatment, and all relief stations furnished in addition, 403,864 out-patient treatments. The majority of these patients are merchant seamen, although there is a considerably increasing demand for hospital and other medical services from certain other beneficiaries, especially those of the U. S. Employees' Compensation Commission and the U. S. Coast Guard Service. Six and one-half per cent of the patients remaining in hospitals June 30, 1924, were beneficiaries of the U. S. Veterans' Bureau.

Additional buildings for the National Leper Home at Carville, La., have increased the capacity of that institution to 420 beds.

Through the State Department, from diplomatic and consular offices, and through other sources, reports of 109,359 cases of cholera with 71,858 deaths were received by the Surgeon General. These cases were distributed over nine countries. Bubonic plague shows a much wider distribution than cholera, there having been reported 233,708 human cases with 189,096 deaths distributed among the people of forty countries.

Smallpox remains the most widely distributed plague in the world, due, the Surgeon General says, to neglect of vaccination, revaccination and in part to organized opposition to this most efficacious measure. Approximately one-fifth of all cases reported occurred in the United States.

Typhus fever, though not as extensive and dangerous as plague is still being reported from many countries. The measures enforced by the Public Health Service to prevent the introduction and spread of this disease are directed exclusively against the body para-

site, which conveys it and have proven efficacious.

Yellow fever was reported from only three countries during the year and while still a very potential danger to the people of the Southern States, caused very little interference with commercial relations during 1923-1924.

For a number of years, the Public Health Service has conducted an extensive co-operative campaign for the discovery and cure of cases of trachoma—a serious, contagious disease of the eyes, which untreated, invariably results in extensive impairment of vision and often a total loss of the sight. This work has been conducted with much success, and a program has been prepared by the Public Health Service and approved by the Commissioner of Indian Affairs, for the purpose of undertaking it among the Indians.

Demonstration projects in rural sanitation were conducted in 72 counties in 16 states. This is one of the most important and productive works in which the Public Health Service is engaged.

Further studies in cancer, goiter, malaria, tularaemia, Rocky Mountain Spotted fever and other diseases have been made.

A vaccine for Rocky Mountain Spotted fever has been prepared which will protect animals, which die without its use, but as yet no opportunity has been afforded to test its efficacy in man.

The importance of milk as a food and the dangers which may be caused by contaminated milk have long been recognized. The Public Health Service has continued to be actively interested in the problems of maintaining a pure milk supply.

In studies made in Child Hygiene, it was found that each child in a large group studied, is ill during the ordinary school session on an average of 2.3 times involving a total average loss of 7.3 days per child per school year or 4.1 per cent of the possible days of attendance. The common cold and headache were found to be the most common causes of absence from school, with digestive disorders next and other diseases in the following order of frequency, namely: grippe, influenza, tonsillitis, sore throat and measles. Measles, however, cause considerably more absence in terms of days than either headache, or digestive disorders. The duration of illnesses as measured in school days lost per case was found to be greatest in whooping cough, scarlet fever, pneumonia, diphtheria and measles in the order named.

Two physicians and several laboratory workers have been attacked by either Malta fever or tularaemia through experimental

work and have suffered long and seriously from their effects.

A new method has been devised for the standardization of Insulin which has revealed the fact that there is a very considerable variation in the potency of commercial supplies of this important substance.

—R—

Worth Looking Into.

The perfect antiseptic for irrigations and wet dressings seems to have been discovered at last. According to the manufacturers, it is equal or superior to chlorine compounds on the score of activity, and in suitable solutions neither irritates nor stains.

The basis of this antiseptic is bromine, and the product itself is called Dibromin, there being two atoms of bromine in each molecule. Dibromin is said to be freely soluble in water up to four per cent, and the solutions required in practice run from 1:10,000 to 1:2500, rarely more concentrated than the latter.

A special feature of Dibromin, one which physicians and surgeons will keenly appreciate, is the ease with which desired solutions can be made up—simply by adding the powder to water in any proportions determined upon.

Parke, Davis & Co. offer free literature on Dibromin to interested members of the medical profession.

—R—

Intermittent Claudication (Thrombo-Angiitis Obliterans) Involving the Intestinal Tract

Jacob Meyer, Chicago (*Journal A.M.A.*, Nov. 1, 1924), reports the case of a man, aged 47, with thrombo-angiitis obliterans, involving the intestinal tract. Sixteen years previously, he had suffered with the same process in both lower extremities, for which amputation had been performed. The chief abdominal symptoms were severe intermittent and later continuous pain, associated with enormous enlargement of the colon. The clinical picture suggested a chronic ileus, because of the severe constipation, occasional vomiting, distention of the bowel and visible peristalsis. It is important to differentiate this condition from coronary sclerosis with abdominal symptoms, abdominal angina, and also from malignancy of the bowel.

—R—

The donkey said to the Ford: "What are you?"

Ford: "I'm an automobile."

"Huh," said the donkey. "I'm a horse."

Harmonizing Workmen's Compensation Laws.

New York, Jan. 15.—Workmen's compensation laws, even those of some adjoining states, differ either medically or legally in important details, says the National Industrial Conference Board, 247 Park avenue, New York City, in presenting seventeen suggestions offered by its medical adviser, the Conference Board of Physicians in Industry, for harmonizing the medical differences and thereby doing away with much confusion and many difficulties in the administration of the laws.

While there is a general similarity in all of the laws important differences are found in them which make for misunderstandings and discontent on the part of workmen having claims under them. This is particularly true in adjoining states, in one of which benefits for certain injuries may be much higher than for similar conditions in a neighboring commonwealth. The situation has been further complicated by decisions of industrial commissions and courts which often make opposite interpretations of identical phraseology in different laws.

The Board of Physicians suggests, in effect, that:

At least one member of each state compensation board should be a physician, who should also be the medical director of the board;

Each Board should have a consulting staff of specialists to advise it on medical problems;

Examining physicians should be appointed by the state board on recommendation of the consulting staff on the basis of their professional qualifications;

Only licensed graduates of recognized medical schools should be permitted to treat compensation cases;

Medical fees should conform to the average charges for life work in the community; "Medical treatment" should include all necessary medical, surgical, and hospital care and attendance and also such supplies and appliances as may be necessary;

Examination of an injured worker should be made immediately following the injury and later examinations should be at the expense of the party requesting the same;

The choice of physician should be made by the employer or be made by the em-

ployee from a list of local physicians compiled by the employer;

Copies of the findings of examining physicians should be furnished to all interested parties, and reports and testimony of other physicians should not be allowed before the board till medical representatives of the other party have knowledge of the information to be given;

The refusal of medical treatment by the injured worker should release the employer from further responsibility in the matter;

Amputations should be made with regard to the function of the part remaining and not alone with regard to the amount of tissue removed, which latter proceeding might leave a tender appendage, useless for applying an artificial member and would, at the same time, in some states reduce the compensation of the injured employee.

Autopsies should be made at the request of the employer, the beneficiaries, or the state board, and should be paid for by the party requesting them;

Compensation for disease alleged to be due to accident should be granted only on proof of direct casual connection between the accident and the onset of the disease.

Compensation for the aggravation of latent or pre-existing disease should be limited to the degree of disability caused by the aggravation;

The per cent of reduction of vision and its economic valuation should be based on the age and occupation of the employee, and each case should be judged on its merits and not by a predetermined schedule;

Claims that hernia has been caused by employment must be made within twenty-four hours of its alleged occurrence and must be supported by proof of certain specified conditions;

Compensation should be granted for occupational diseases that are peculiar to the employment or are due to some unexpected result thereof. The term "and sequelae" frequently used in connection with occupational disease schedules, should be eliminated.

These provisions are not new departures, since everyone of them may be found in the compensation laws of one or more of the states; but, the Conference Board points out, their substantial inclusion in all the state laws would obviate much of the confusion and difficulty now experienced in the administration of these laws.

Unrecognized Clinical Importance of Anal Pruritus

J. F. Montague, New York (*Journal A. M. A.*, Nov. 29, 1924), states that as a symptom, of visceral disease or derangement, the value of anal pruritus cannot be overestimated. He states further that if every case of anal pruritus were subjected to a sigmoidoscopic examination, carcinoma of the rectum would be seen more often in a truly operable state, rather than in the inoperable form in which it is now generally brought to the surgeon's attention. Three cases are recorded. Anal itching was the complaint from which relief was sought. In one case bimanual examination of the pelvic organs, however, showed the presence of a large mass in the region of the right tube. On operation, two large unilocular ovarian cysts were found and removed from the right ovary. An uneventful recovery with complete cessation of pruritis resulted, nor has it recurred in the eighteen months since. In the second, treatment of an enlarged prostate gave relief from the itching. In this third case, sigmoidoscopic examination showed the presence of what later proved to be an adenocarcinoma in the wall of the intestine at the rectosigmoid junction.

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Anaphylactic Shock Following use of an Organic Coagulant.

BERNARD E. SAYRE, Chicago, (*Journal A. M. A.*, Jan. 3, 1925), relates a case of a severely toxic goiter in a man, aged 30, in which, after enucleation of the gland, a continual oozing on the left side of the trachea could not be stopped. As the bleeding was very close to the recurrent laryngeal nerve and ligation not practical because of danger of injury to the nerve, an organic blood coagulant (coagulose) was applied to the bleeding surface, the area packed with gauze, and the incision sutured in the usual manner. The blood pressure before operation was 160 systolic and 80 diastolic. During the operation, it rose to 180 systolic and 90 diastolic, and at the close of the operation the blood pressure had dropped to 165 systolic and 85 diastolic, with a pulse of 120. The patient was breathing well and appeared in good condition. About fifteen minutes after the application of the blood coagulant, the patient suddenly became cyanotic, breathing with great difficulty and inspiring in short gasps. Foam appeared at the mouth. Within a minute or so, breathing ceased.

The heart became rapid and the pulse somewhat weak, but continued to beat regularly. Artificial respiration was resorted to; stimulants were given hypodermically; oxygen was administered, and breathing was finally resumed. Cyanosis lasted for ten minutes. The patient remained unconscious for two hours afterward, although ether was not given at any time during the operation, and the gas anesthetic had been stopped fifteen minutes previous to the onset of dyspnea.

—————R—————

Physiologic Effect of Massage.

In connection with a study made by RALPH PEMBERTON, F. A. CAJORI and C. Y. CROUTER, Philadelphia (*Journal A. M. A.*, Nov. 29, 1924)), of arthritis and rheumatoid conditions, analysis has been attempted of some of the measures known to benefit them. Conspicuous among these measures are exercise, the application of external heat and massage. Studies were therefore undertaken on five arthritic patients sufficiently active and robust to permit of general and severe massage, in respect to the hydrogen-ion concentration, carbon dioxide content, oxygen content, oxygen capacity, percentage oxygen saturation, inorganic phosphorus and lactic acid of the venous blood before and after massage, and also the hourly volume, hydrogen-ion concentration, titratable acid, organic acids and inorganic phosphorus of the urine before and after massage. It is to be noted that massage of voluntary muscles, even though vigorous, is not accompanied by the evidences of lactic acid production and acidosis, which accompany relatively mild active exercise of short duration, or by the evidences of loss of acid and alkalosis, which follow exposure of the body to external heat. Massage can be used as a partial substitute for active exercise in many conditions, but its benefit must be due chiefly to some mechanism other than that reflected in the chemical changes accompanying exercise. The available evidence suggests that these benefits are referable to changes in the circulation, especially capillary. The favorable influences on the rheumatic syndrome of exposure to external heat, massage and active exercise apparently find their chief explanation in their influence on the circulation, including the capillary beds. The corollary to this is that a disturbance of the circulation constitutes part of the underlying pathologic change in rheumatic and arthritic conditions.

Residua and Sequelae of Epidemic Encephalitis.

From about eight postencephalitic cases, S. PHILLIP GOODHART and SAMUEL SMITH COTTRELL, New York (*Journal A. M. A.*, Jan. 3, 1925), have selected twenty-one of especial interest. A study of the static, kinetic and synergistic mechanisms affected in encephalitis and in such classified entities as chorea, dystonia musculorum, striatal syndromes, paralysis agitans and multiple sclerosis not only indicates that the damaged nerve centers are the same anatomically, but also suggests that the acute pathologic condition in the one case terminates in a histo-pathologic process which is the same in the chronic stages of encephalitis as in the conditions that obtain in the syndromes of older nomenclature. A review of histories and observations does not suggest a more or less constant relationship between the symptoms of the acute illness and development later of a particular type of motor deformity; that is to say, the nature of the acute manifestations does not enable approach to definite judgment of the subsequent behavior. For example, the final static posture, with its reduction of psychophysical activity, may be preceded in the acute or subacute phase of the malady by a period in which the hyperkinetic mechanism produces an original posture with dominant choreiform or dystonic movements. Naturally, a graver prognosis in the acute stage is presented when there is early bulbar involvement. As a rule, the outlook for recovery is better in the hyperkinetic than in the early static types with their parkinsonian fragments.

—R—

Diabetic Diets.

Diabetic diets in grams per kilogram of body weight have been calculated by HORACE GRAY, Santa Barbara, Calif., (*Journal A. M. A.*, Jan. 3, 1925), from reports on 140 children treated with insulin. The practice in his clinic has been to use less protein and fewer calories than in other clinics, and less fat in proportion to carbohydrate (i. e., low F:C; or F:G, when available glucose = grams C plus P/2). Averages from the 140 diabetic children show a diet of 55 calories per kilogram of body weight, a carbohydrate of 2.6 and protein allowance of about 2.1 gm. per kilogram, and fat of 4.1 gm. per kilogram, with insulin, 20 units a day.

Traumatic Fat Necrosis

Two cases of fat necrosis are presented by William Barclay Parsons, New York (*Journal A. M. A.*, Nov. 29, 1924), one of the breast and one of the inguinal region, the latter because so definitely due to trauma, and the breast case because of the importance of the differential diagnosis from carcinoma; the small firm mass in the breast with the orange peel skin and slight dimpling are signs of considerable moment, suggestive of malignancy. Both patients sought relief on account of a painless lump, which at operation was found to lie in the subcutaneous fat. The first case presented a definite history of injury. The second patient, although exhibiting an area of ecchymosis, could not remember the receipt of any trauma. The source of this subcutaneous hemorrhage would seem to have been traumatic in all likelihood, as she gave no history of spontaneous hemorrhages elsewhere in the body at any time. The etiologic factor is thus assumed to be trauma in one case, and suspected trauma in the other. The duration of both these cases is very short, twelve and ten days, respectively, Barclay believes that these are as early as any of the cases that have been noted.

—R—

Open Season for Poison Ivy

Mr. McNair has set forth facts about poison ivy which may save the vacationist infinite discomfort. He has made identification of the plant easy, has told how to avoid infection, and how best to effect a cure. Contrary to popular opinion, the poison is not carried by the air or the pollen, but is held in the sap, coming to the surface only when the plant is injured. To avoid touching the plant is, therefore, the best preventative, but the poison may reach the susceptible person by way of intermediate agents.

As a complete preventative, McNair advises washing the exposed surface of the body with a solution of 5 per cent iron chloride in 50 per cent alcohol and water. This application will render harmless any ivy poison it touches; prevent the action of the poison before it enters the skin, and stop its spread from one part of the body to another. This substance was known to alchemists hundreds of years ago. It was used as a remedy for poison ivy in 1885, and by 1895 was known to act chemically on the poison. Mr. McNair, however, was the first to discover that iron chloride could render the poison innocuous.

This substance will work no miracle; its

application will not immediately heal ivy-blistered skin. The injury caused by the poison is similar to a burn, and will not heal in a day. As the Great War has shown, the best remedy for burns is paraffin, and it is this substance that McNair has found most effective in stopping the pain and assisting in the repair of ivy-blistered skin. Vacationists who wish to avoid having their vacation ruined by the ivy plant will do well to include some iron-chloride mixture and a few paraffin candles in their kits.

—R—

Amount of Blood Lost During Some of the More Common Operations.

The amount of blood lost in a series of operations has been determined by Dr. W. D. Gatch and W. D. Little, Indianapolis (*Journal A. M. A.*, Oct. 4, 1924). Colorimetric means were employed. To test the accuracy of the method, some preliminary experiments on animals were carried out. A consideration of the results is extremely instructive. They show that the loss of blood in ordinary laparotomies is insignificant. Even in radical gastrectomy for carcinoma, the loss was only 232 c.c. They also show that in operations other than laparotomies, the loss is much greater. In

a case of laminectomy for fracture of the spine in which 672 c.c. was lost, a large part of the blood was already extravasated at the site of injury. In a case of radical excision of the breast, pectoral muscles and axillary glands for carcinoma, 710 c.c. was lost. This case shows the very considerable loss of blood that may be masked by the use of gauze packs instead of being stopped by them. These results show also that a patient in fairly good physical condition may lose from 600 to 700 c.c. of blood without any apparent harmful effect from hemorrhage until the amount of blood lost is between 800 and 1,000 c.c. It would seem that when a patient requires a transfusion because of hemorrhage or anemia, the amount of blood given to be of much benefit should be rather large—at least 600 or 700 c.c. In desperate cases to save lives, two donors should be used and from 1,200 to 1,500 c.c. of blood given. Occasionally it may be wise to give even more than this—say from 2,500 to 3,000 c.c. in the purpuras on conditions with bleeding tendency. Operative or traumatic hemorrhage will probably be fatal before indication for such large amounts would arise.



PARATHYROID

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—And—

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Anterior Pituitary powder, 2 and 5 grain tablets. Pituitary whole gland, powder 1 and 2 grain tablets. Posterior Pituitary, powder and 1-10 grain tablets.

Literature for Physicians

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Low Back Strain

As an aid in the determination of the gravity of the lesion in the low back, these cases of so-called strain are considered by E. G. Brackett, Boston, (*Journal A. M. A.*, Oct. 4, 1924), from two points of view: first, in relation to the character of the violence causing the injury, and, second, in relation to the condition existing in the spine at the time of the injury. In general the injury occurs either as a local wrench, almost always in the lumbosacral area, or as a general strain involving a larger area, and in each, the mechanical etiology often has a direct bearing in the diagnosis, and also may be of aid in forming an estimate as to the degree of resulting disability. There are two special conditions under which the violence may be incurred in these back sprains. In the one, it results from and during some severe muscular exertion on the part of the subject. In the other, it results from an external mechanical violence exerted on the subject, and independent of him. From the second and more important point of view, these cases are to be considered in relation to the condition of the spine existing at the time of the injury. Brackett's paper deals principally with residual cases showing persistent disability, in which there is an anatomic or a structural basis. The important feature of the sprain injuries of spines that are the seat of a pathologic process, usually osteoarthritis, lies in the fact that the symptoms arise largely from the violence to joints already diseased, rather than from the violence of the strain itself. It is essential to remember that a spine may present an extensive degree of osteoarthritis, sometimes localized to a small area, sometimes more widely distributed, and yet be without prominent symptoms, and, moreover, these conditions can even exist without the patient's being aware of their presence. The restriction of the motion may develop so gradually that the patient gradually and unconsciously adapts himself to the limited activity, provided no acute or sensitive condition develops from trauma or other cause to give rise to acute symptoms. In order to differentiate the cases of true disability from those not real, in dealing with these cases of back injury

showing a degree of persistent disability, it is necessary to keep in mind the part that may be played by some pathologic or abnormal condition in the spine existing at the time of the accident. It brings into prominence the question of the suitability of many of these patients for the severe forms of work, requiring hard but normal physical exertion, and the responsibility that this previous condition of potential weakness carries over to the stage of persistent disability after the injury. How long a patient would have been able to continue his work with such a pathologic condition of the spine, and without an injury to bring on a crisis, is a question, yet the injury as the determining factor in the establishment of a disability cannot be disregarded. The advisability of employing these men indiscriminately for laborious work is debatable. In regard to the treatment of this group of persistently disabled persons who are found to have definite defects, the demand is for definite and radical measures. The treatment in detail of these cases is not considered in this paper. The ordinary apparatus applied for support and protection and the measures of physiotherapy give only temporary relief to these patients. A spine once the seat of injury because of defect can hardly be expected to endure the repeated stress with impunity. The only refined way of remedying a loose or defective articulation of this kind is to fix it firmly by a bony union.

WANTED—The right kind of man to take charge of, or to lease, buy all or part of well established Sanitarium Hospital on paved road to K. C. and Topeka; outside city limits; reason is desire to retire from active work.—C. C. GODDARD, M.D., Box 92, Leavenworth, Kansas.

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Mental Conflicts and Physical Symptoms

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Read at the Annual Meeting of the Kansas Medical Society at Wichita, May 7-8, 1924.

For many years, while doing general practice, I had become more and more convinced of the efficacy of letting or encouraging my patients to tell their life's story. Later while working with the so-called shell-shocked men in the army, I became more convinced than ever that there was much in their stories to act as an etiological factor in the formation of their neuroses and this factor we will call the "Conscious Conflict."

I will not attempt at this time to discuss the many other etiological factors which may enter into the formation of a neurosis. Such factors as the "Unconscious Conflict," the "Family Romance" or the "Oedipus Complex" will be left to others who will follow in the discussion of this paper.

In order to discuss the "Conscious Conflict" intelligently, it is necessary for us to arrive at some understanding about which we are speaking. The "Conscious Conflict" as here used may be defined as a conflict or fight which we bring about in the conscious mind. This fight is usually between the instinctive, primitive wishes on the one hand and the socialized, civilized wishes on the other; and when a person does any act or commits any crime that is in opposition to their early training, we say that a "Conscious Conflict" exists.

In order to understand why a conflict can exist, it is necessary for us to consider the early evolution of the child. The new born babe comes into the world at the end of a long, long trail of evolution, bringing with him the untamed and untrained instincts of the whole animal kingdom. This is the start which the new born babe has.

During the first year, the babe is largely conditioned to love. The fond mother loves and caresses the body of her infant. She washes, rubs and pats the various skin areas of the babe, thereby increasing its power to love and determining the manner

of its expecting and demanding pleasure even after it becomes an adult.

During the first year, every wish and every desire of the babe is gratified. But with the beginning of the second year, the treatment is radically different. He is now being taught to be clean and many of his desires are denied and his will is frequently crossed. And, unless firmness and judgment is used, the infant during this period may resort to the habit of holding its breath, falling upon the floor in tantrums, kicking and screaming, thus laying the foundation for hysteria and abnormal behavior to manifest itself in later life. During the third, fourth and fifth years, the training must be kind, firm and definite, leading to comparatively perfect obedience. And yet, this treatment should not be crushing. The will should be bent but not broken and thus obedience obtained without rebellion.

At this period, from the third to the fifth years of the child's life, the child is taught to restrain many of its inherited instincts and also we have the beginning of moral training started at the mother's knee. Then the child is taught in the Sunday school, day school and all through life to be a moral creature. When adulthood is reached, the individual has arrived at certain definite convictions of right and wrong—the more severe the training, the firmer the conviction. Every thought, every act, every stimulus and every experience which has reached the child and young adult has been built into his personality; thought upon thought, act upon act, experience upon experience as rock is placed upon rock in the foundation of a great building. If he has been trained to be a rebel, he will be a rebel still; if he has been trained to be a hysteric, he will be a hysteric still; but if he has been trained to obey without rebellion and has been trained in the morals of life, it will be necessary for him to live in perfect harmony with that definite moral training. That is, he must live not as he might wish to live, but must live in accord with that training. And yet, civilized, edu-

cated, religious man has been trying for ages to prove that wrong acts can be committed without paying the penalty, but the penalty is always paid. Just as soon as a man begins to do that which he has been taught is wrong, just as soon he develops a fight in his mind; that is, he develops a conflict and in this case it is above the throne of consciousness. He soon becomes more or less confused. He wonders why he makes mistakes he has never made before. He loses a great percentage of his efficiency and if the conflict is a bad one, he at the least excuse gets sick. He complains of his stomach, his liver or his back and in this condition he frequently travels from physician to physician, seeking the help which he rarely finds; and often when some little accident happens to him, he at once develops a paralyzed arm or a paralyzed leg, or perhaps becomes blind or deaf. Of course, these paralyzes and symptoms are functional as they reside wholly in the mind.

A very unusual manifestation frequently appears simultaneous with the symptoms and that is that the patient always feels mentally very much better after he develops the symptoms. That is, whenever an atonement is made, the mind always becomes better—he is paying his penalty.

A few examples will make this point plain. First, a soldier at Fort Sill, Oklahoma, had the following experience: While working in a corral one day a horse ran into him, striking the horse's right shoulder against his right shoulder, spinning the soldier around striking his left elbow upon the ground, making a slight but unimportant abrasion. He immediately became unconscious, was rushed to the old Post Hospital where he remained for two months with the questionable diagnosis of "traumatic-paralysis" of the right arm.

When I first saw him, found the following: Right arm paralyzed; all skin areas were anesthetized—he could not feel a pin prick; the corneal reflexes were abolished—he could not feel a pin when jabbed into his eyes; pharyngeal reflex was abolished. The deep reflexes were present and normal. He insisted that he was improving and that he was very happy. He was happy but had shown no improvement for eight weeks. He was well educated and had a splendid moral training and I felt very sure that he had a serious "Conscious Conflict." He was sent to the nervous disease ward and after two weeks of acquaintance, I asked him to tell me his story. He immediately denied that

he had anything to tell, saying that he had always been moral and had always lived absolutely right. However, after a few hours of thinking it over he came to my office and begged permission to make a confession. This is what had happened: Two years previously he had impregnated his sweetheart and had run away and had left her to meet her shame alone. Immediately he began to have horrible dreams. He was filled with fear lest he should meet the sheriff at any moment. Six months previously he had joined the Catholic church but without relief, he made no confession. However, after confessing to me, he at once put machinery into motion to correct his misdeed as far as it was possible to correct it, and in just forty hours he met me at my office door and saluted me with his arm which for ten weeks had been paralyzed. Examination revealed a complete physical recovery. He at once became a good and efficient soldier. Yet one feels sure that there were more conflicts which should have been uncovered in this man's mind which some day may give him more trouble.

Another case is that of a Lieutenant upon whom I was called to council at the Old Post Hospital at Fort Sill about the first of August 1918. About the first of October of that year he was transferred to my care. When seen in August, he could walk quite well but all skin areas were anaesthetized from his waist down. At that time he was recommended for discharge but for some reason the recommendation did not go through and when he came under my care October first, he was a pitiable sight. He had a typical Astasia-abasiac walk. He was then walking with two canes, shoving first one foot four or five inches and then the other foot, never taking either foot from the ground. He was so full of fear that he could hardly talk or answer ordinary questions. Examination revealed besides the walk that all skin areas were anaesthetized and the corneal and pharyngeal reflexes were abolished.

At first he would deny that he had any story to tell and would become very panicky upon each visit but later he told me his story which for a man raised as he had been raised, was indeed very sordid. He had been raised a devout Churchman, had both College and University degrees. This is what he had done: He had made incestuous love to a maiden aunt and had borrowed a large sum of money from her and had hidden it so that she could not get it.

He finally said, "Give me thirty days and I will make things right. You don't have to tell me what I must do to get well. I know." He had his thirty days and long before that time was passed he was tramping without canes, over the hills around Fort Sill.

Another was a case of a Captain from the School of Fire. For many months this man had been a very efficient officer in the artillery. Gradually, however, work became hard for him and he broke down. Upon examination, the principal sign found was a disturbance of the tactile sensation. He, like the previous cases reported was anaesthetized from the waist down. I sked him to tell me his life history but he, like the rest denied that he had a story. Finally, he said, "Yes, I have." Twelve years previously he had betrayed his sweetheart and for twelve years this woman had begged of him to give her child a name. When he got through with his story I asked him if he knew what he had to do. He said, "Yes sir, I do." He went directly to the telegraph office and wired the mother of his twelve-year-old son to come to Fort Sill at once and be married. This man's recovery was quick and complete. He immediately became, as previously, a good and efficient officer.

One other case may be mentioned. A young married woman was admitted to a private hospital with obsessions. She would walk about the ward wringing her hands and saying, "Can a little girl six years old commit a great sin?" Also she became obsessed with the idea that by locking at a baby she would injure it so that the baby would die. Upon the face of this, one can see two things: first, a great sin and second, a baby.

She had been raised a devout Catholic. She had been taught that to marry a Protestant was a great sin; that by being married by anyone saving a Priest was no marriage and that she would be living in adultery. She was also taught that abortion was murder. Her story ran somewhat as follows: She ran away and was married to a Protestant by a Justice of the Peace and six months later a criminal operator murdered her unborn child. The obsession of hurting a baby by looking at it comes from the fact that she murdered her own unborn baby. The obsession of the sin at six years old is not quite so evident. But when the emotion of one event is torn from that event and tied to some other

event, then an obsession exists. She had torn all of the emotion from the abortion and tied it to the little childhood love affair and thus produced her obsession.

The treatment consisted in taking the sin from the childhood event and putting it back to the place of the origin. This was done by calling her attention, in severe terms, to the sin of her abortion and she rapidly improved. To be well she must be remarried by the Priest and never again produce abortion. She must live in harmony with the religion of her childhood. She must live, not as she might like, but must live in perfect harmony with the principles of her early training. Lady MacBeth cannot escape the penalty of her crime.

In conclusion I wish to say: First, that it always pays to listen to the Life's story as told by the patient. Second, that the conflict thus discovered is frequently only one of several etiological factors, but often a very important factor in the formation of the neurosis. And third, the patient in order to get well, and stay well, must live not as he might wish to live but must live in harmony with the principles of his early training.

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Treatment of Burns

MARTIN HOGAN, M.D., Wichita

Read at the Annual Meeting of the Kansas Medical Society at Wichita, May 7-8, 1924.

In this short paper I do not hope to add anything new to this very serious and interesting question, because there have been so many and such varied treatments that to find something new would be almost out of the question. There are undoubtedly good points in all these different methods of treatment.

What I am aiming to do in this paper is to pick out and put together well established lines of treatment in such a way as to give a simple practical routine for treating burned cases that will add much to their comfort and to the final outcome of their cases.

I offer this not based on a report of any series of cases but from observation and experience of the past twenty years.

Burns are accidents that occur frequently. It is estimated that in 1922 there were not far from 6,300 deaths from burns in the United States. Any physician at any time is liable to be called to treat one and it might be a very serious one, so we should always be prepared to meet this emergency

and it is a very practical thing to be able to do so.

The first thing to consider in a severe burn is relief of the pain. Warbasse says, that above all the patient should not be permitted to suffer pain. Pain means shock and shock is the fatal phenomenon in burns. Give morphine gr. 1-6 with hyoscine gr 1-100 per hypo. A warm bath in a 2% solution of sodii bicarbonate to restore heat and combat acidosis, then 5% sodii bicarbonate with glucose per rectum.

Underhill et al in July, 1923, Archives of Internal Medicine, have shown that the loss of fluids from the body in burn cases quickly induces a marked concentration of the blood which becomes a factor of prime importance in the fate of the person concerned. Rapid and continuous introduction of fluid by all possible channels, as by mouth, by rectum, under the skin or intravenously will cause a gradual return of the blood concentration to normal and a comparable improvement in symptoms. Forcing fluids is certainly a logical procedure in burn cases and this should be not less than one or two gallons per day. Then to guard against ulcer of the stomach or duodenum a liquid diet should be enforced and if threatening symptoms develop, no food by mouth for three or four days.

Dr. Sneve of St. Paul reported in the American Medical Association Journal, July 1, 1905, a series of sixty-three cases of burns treated by the open air method with excellent results. The time for healing was shortened by about two thirds as compared with the usual methods. Drying is the process by which nature heals all the minor injuries that we receive and if nature is able to dry the surface, the wound is sealed to infection. Bacteria can not multiply or even be active in the absence of moisture. This is what you get in the first and second degree burns with a picric acid dressing. The surface soon dries and the field has been sterilized.

The opinion seems unanimous that there is no better dressing for first and second degree burns than picric acid. I have always used a formula I took from Hare's Therapeutics twenty years ago. It is made up of 1½% picric acid, 8% alcohol and 92% water. You can carry in your grip 5 gms. of picric in 80 cc of alcohol and when needed, dissolve in 1000 cc of water and you have more solution than you need to meet any emergency. You also can carry plain gauze, cotton and bandages. Take whatever amount of gauze you need for the

given case, dip it in picric acid solution, wring it out dry and wrap it loosely over burned surface, cover with cotton and bandage. You will notice that the gauze is to be wrung out dry and in no sense is this a wet dressing. It soon dries on the skin and is not to be disturbed for three or four days. This is the initial local treatment for every burn no matter how trivial or no matter how severe.

After three or four days you remove the dressing. If it was a first degree burn you will find everything dry. If a second degree you also find everything dry, probably many large blisters filled with clear serum. These are never opened but a fresh dressing applied the same as the first and again left for three or four days. These cases remain dry and heal as rapidly as nature can heal them without interference from infection. The blisters may rupture at any time and their contents be discharged into the dressing or part of it discharged but as long as the epithelial covering will stay on I never disturb it and not until I get a raw surface do I make any change in the treatment. If the blister breaks and leaves a raw surface then I spray that raw surface with paraffin and cover it over with a picric acid dressing the same as before. Now we will consider the more serious burns: Any burn, regardless of how extensive, is treated in the same way. Remove the clothing and any loose fragment of foreign substance or burned tissue and wrap loosely with gauze wrung dry out of picric acid solution and cover with cotton and bandage. This dressing will have to be changed in 24 hours because there is so much exudate from the burned surface that everything will be soaked. After removing the cotton and bandage, place the patient in a bath tub of warm water and allow the dressings to soak until they are all loose and fall off or are easily removed.

Here, I might mention that every hospital should be equipped with one bath-room where it is possible to wheel a car into it and have enough room to conveniently lift the patient from the car to the tub and also be equipped with irrigation and sprays so that the patient could be dressed in that room without taking him through the halls to room or dressing room. After the dressings are removed, irrigate all raw surfaces with 1% phenol and then spray all raw surfaces with 5% petrogen iodine then with paraffin and then apply picric acid dressing as before. This is repeated once daily or if patient is running

high fever, twice daily. Open no blisters. Cut away no tissue. There should be no pain to removing dressings. There should be no bleeding and there is very little odor. After the sloughing tissues have become gangrenous and loosened from the living tissue, clip what few strings still hold and remove it without causing bleeding or pain.

After the necrosed tissue has all sloughed away and you have a clean healthy looking granulating bed your patient is ready for skin grafting. This need not be done early as the skin grows in rapidly from all margins but when you are ready to skin graft, do not consider anything but auto graft if at all possible.

Choose a field from which you wish to take the graft. Paint it with 50% iodine the day before and cover with dry dressing. The next morning you are ready to proceed with your grafting. Put the patient through his routine bath, remove dressings, irrigate with 1% phenol, place patient on the car or table and spray raw surface with 5% petrogen iodine. With $\frac{1}{2}\%$ novocain, block off an area in the skin from which you wish to take the grafts, shave off some Tiersch grafts or snip off Riverden graft and place on the raw surface one inch from skin margin and one inch apart. After you have finished lay picric acid dressing on area from which grafts have been removed until bleeding stops. Then spray area that has been grafted with 5% petrogen iodine, also spray area from which grafts have been removed with 5% petrogen iodine, spray a good coat of paraffin on both areas and cover with picric acid dressing. The next day place patient in bath, remove dressing, irrigate with 1% phenol, spray both fields with 5% petrogen iodine, spray on a good coat of paraffin and cover with picric acid dressing. Repeat this daily and you will be surprised at how fast those grafts spread and how fast the whole field becomes covered with epithelium.

Do not cauterize any granulations. They may seem a little high but the epithelium climbs over them and they all come down to a perfectly smooth scar. After your field is entirely covered, do not discontinue your paraffin dressings but continue it until the delicate epithelium has had time to thicken up and become tough.

There is no part of any of this treatment that is painful. The spraying with 5% petrogen iodine should not cause pain and will not if you are careful to use only the clear upper part but if you get some of the

precipitate or sediment from the lower part of the bottle, pain is severe and therefore should not be used.

This entire treatment can be carried out in any hospital, office or home. It is a great advantage to be able to tub bath those severe burns, but they can be treated in this way without tubbing.

In regard to skin grafting, my experience and observation has been that only auto grafts have been a success and I feel that with this method of treating burns any other than auto grafts are rarely if ever necessary.

Dr. Holman of Boston in the January, 1924 number of Surgery, Gynecology and Obstetrics, pointed out that iso- or home-skin grafting is usually a failure and only in isolated cases a success. He also points out the danger of protein sensitization in which subsequent attempts at grafting sets up an anaphylactic reaction or some reaction almost identical with it and cites a case in which a child developed an exfoliative dermatitis after a second graft from the mother, two days after the first graft which persisted in spite of all treatment for three and one-half months and only recovered after what few fragments of grafts that took were curetted away.

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Diabetes

E. C. DUNCAN, M.D., Fredonia

Read before the Wilson County Medical Society at its Neodesha December meeting, December 8th, 1924.

The object of this paper is to summarize the exact method of handling our ordinary diabetic patient instead of sending him to an expensive hospital in a distant city. For believe me, if you do you will find upon her return that she will be so well educated that she will look with some superiority upon her old family physician—that is unless you yourself have made yourself familiar with grams, calories and such lingo.

We have all heard much, very much about diabetes lately, and as one out of each hundred population in the U. S. has the disease, it surely is important. We have many articles in our medical journals, and much literature from various sources. Yet there is so much of this that one is sometimes bewildered as to just exactly what to do when we get a patient with sugar in urine. To condense this is therefore my object.

We are beginning to understand the overwhelming importance of overweight. It is necessary for us to know the importance of this, and the proper diet, ourselves,

and to educate the patient and his family. Diet scales marked in grams, tables of food values, and diet lists are necessary. These are easily obtained. Lilly has many good charts that may be had for the asking. "Food values" by Edwin A. Locke, published by D. Appleton & Co., and a small booklet by the Mayo Clinic will furnish all one needs to know about diet. A couple of test tubes, Benedict's solution and an alcohol lamp completes the outfit.

Practically all diabetic deaths are caused by one of two causes, viz., diabetic coma and gangrene—except, of course those who die from acute infections and other causes from which non-diabetic persons die.

Unfortunately, insulin does not cure but it does save life, and makes life good, useful and worthwhile. It is not hard to train your patient to examine her urine, which should be done several times daily, and she must live on a strictly weighed diet and take the once, twice or thrice daily injections of insulin as you may direct, after having worked out her carbohydrate tolerance.

The normal diet of a person who does an average amount of manual labor should consist of somewhat near to the following:

Protein	100 grams containing	400 calories
Carbohydrate	350 grams containing	1400 calories
Fats	150 grams containing	1350 calories

Total -----3150

Before going further it might be well to say that if everything is weighed by the Metric system, it will be easier and better:

1 gram contains	15 grains
30 grams contains	1 ounce
1 kilogram contains	2.2 pounds
30 cc contains	1 ounce

Food values as follows:

Carbohydrates	1 gram	4 calories
Fats	1 gram	9 calories
Protein	1 gram	4 calories

Proteins are mostly for tissue building and repair but 50 per cent may be converted into sugar. Fats are heat and energy producers and for storage of heat and energy. They do about the same work as sugars yet differently and while they replace sugar in the body, certain dangers are encountered in this replacement.

The fats have their own special work cut out for them.

Carbohydrates are used more for the immediate production of heat and energy and are not stored in the body as a reserve

as are fats, yet of course they are stored.

In diabetes, which is caused by some disorder of the Island of Langerhans, the system cannot utilize the 350 grams of sugar daily, but this sugar passes off through the kidneys.

During the period immediately following the discovery of insulin, it was thought necessary to keep a strict watch over the blood sugar, which is a laboratory job, the normal blood sugar being 1-10 of 1 per cent. However, there is on the market a quite simple apparatus and reagents and instructions which makes the estimation of blood sugar relatively simple. It has been discovered now that all but a very few cases can be handled without this blood sugar estimation—but by the strict supervision of the urine, and that even insulin is given and all instructions given on the basis of the sugar in the urine.

A patient comes in and you find sugar in the urine—test for percentage with Benedict's solution, with the outfit sold by Lilly, require your patient to go home, and either go to bed or be perfectly quiet, save all the urine passed in 24 hours and prescribe the following diet known as test diet:

Carbohydrates	40 grams	160 calories
Fats	100 grams	900 calories
Proteins	40 grams	160 calories

Total -----1220

If your 24 hour urine shows no sugar, increase your carbohydrates about 20 grams per day, until you are giving 100 grams daily, increasing your other food constituents also, to correspond to the maintenance diet. The maintenance diet is the least that will do for the upkeep of the patient with a fair amount of exercise, and is as follows:

Carbohydrates	100 grams	400 calories
Fats	210 grams	1890 calories
Proteins	60 grams	240 calories

Total -----2530

You will notice that you are getting sufficient calories by increasing your fats from the normal 150 to 210; and reducing your carbohydrates from the normal 350 to 100.

But suppose that you do not have this happy result as you go along the first days with your test diets? Suppose the second day, when you increase your carbohydrates from 40 to 60 grams, you find sugar, you had no sugar with 40 grams. It means that you have established this patients carbohy-

drate tolerance, which is 40 grams per day. But we know from the experience of others that you cannot dispense with all sugar, not even keep your patient on the small allowance of 40 grams daily, and that she must have at least 100 grams daily, as indicated in the maintenance diet. We now know that we must help the system to care for the difference of what the patient can handle, viz., 40 grams, and the minimum maintenance diet, which is 100 grams. One unit of insulin takes care of 2 grams of sugar, therefore the patient must take 60 grams of carbohydrates he cannot utilize without help and 30 units insulin. We therefore arrange to give subcutaneously 30 units per day and probably it is best given 15 units 30 minutes before breakfast and 15 units about 3 p. m. Examine the urine carefully for sugar and if slight amounts appear, increase our insulin a very little or reduce carbohydrates slightly.

Too much protein is injurious. The body needs about one gram of protein per kilogram of body weight—a kilo being 2.2 pounds.

Diabetic coma—acidosis—I will not discuss this condition, except to say that one must make daily examinations of urine for diacetic acid. A convenient and easily made test is the ferric chloride method which you will find in any good work such as the small handbook of Mayos. A too high fat diet tends to acidosis. That is one reason amongst others why we should arrange for our patient to have at least his minimum daily allowance of carbohydrates. Should you find diacetic acid, get busy at once if you would avoid disaster: Na bicarb, large amounts of liquids, orange juice 50 grams every hour, glucose 10 to 20 grams intravenously, and 20 to 40 units of insulin. This treatment is a specific for acidosis and diabetic coma.

You will be surprised at the interest with which the family takes hold of the diet question. It is a game better than Mah Jong, golf and other indoor sports, figuring out the grams, calories, etc. With the special diet scales, a couple of test tubes, some Benedict's solution, and alcohol lamp, the daughter, husband or wife, will have many a pleasant hour. The prepared diet list showing the amount of calories, grams of the different foods, etc., are not always at hand, and even if they are, many of the ingredients are not available on the local market. Hence it is necessary for each dia-

betic to have some one who can actually figure the grams, calories, etc.

Just a word about the quantitative sugar examinations. Say you have secured Lilly or some other make of outfit, and a special insulin hypodermic syringe and have mastered the simple technique. We have the patients 24 hour urine and find that he has passed 6000 cc and it contains 5 per cent sugar. Multiply the 6000 by 5 per cent and you have amount in grams of sugar passed, viz., 300 grams. Suppose this is the urine of my patient and he passed 300 grams of sugar on a *weighed* minimum maintenance diet. This all being true, it will be necessary to give this patient 150 units of insulin daily to take care of the 300 grams carbohydrates.

Never reduce or cut out carbohydrates without at the same time reducing the fats and proteins. Here is where you get your acidosis from your fats.

Many a fat man with sugar in urine will be cured of his fat and his diabetes at the same time by proper diet.

The dangers of iletin treatment can be avoided by care. The danger is giving too much iletin which produces hypoglycemia—too small an amount of sugar in the blood. That danger can be avoided by careful urinary examinations and the missing an occasional dose. In case you do give too much, it is of no consequence, provided you recognize the fact. The symptoms are:

Sudden hunger, weakness, nervousness, trembling, tachycardia, sweating, anxiety, vertigo, hypotension.

Treatment, sugar at once—candy, orange juice. If urgent, 10 grams glucose intravenously.

The more serious symptoms are not at all likely to occur if the patient is intelligent and has a proper appreciation of the education you have given her.

All kinds of acute infections are dangerous in diabetes. One man in Fredonia who was a wreck, passing large quantities of sugar, is a different man since having his tonsils removed. He told me a few days ago that for the past six or eight months he has had no trouble whatever and is only moderately careful. He does not attempt to diet at all by weights and measures.

The feet are of the utmost importance. The improper paring of corns, abrasions of the feet, hang-nails, should receive 100 per cent attention. The feet should be washed daily, antiseptic used, particular attention to socks without holes, proper shoes—in

fact the feet should receive at least as much attention as the head.

You will notice that most diet lists and tables of food values are based on so many grams carbohydrate, protein and fat per 100 grams of the food. A calorie is the amount of heat required to raise the temperature of 1 gram of water from zero to 1 degree centigrade.

If you have your patient on a regulated, weighed diet, and for some reason he should vomit his food, or develop a diarrhoea, and if you are giving him iletin, be careful you may give him too much for the amount of sugar he absorbs, and produce a hypoglycemia.

What shall I do when the diabetic comes in?

1. Save all urine for 24 hours.
2. Put him on a 1220 calorie test diet.
3. In bed or at rest.
4. Test the 24 hour urine for sugar and percentage.
5. Increase calories daily until maintenance diet reached.
6. If no sugar, well and good—he needs nothing but your general oversight and no iletin.
7. If sugar present on maintenance diet, make quantitative test, and for every two grams of sugar found, give one unit of iletin.

Four diabetics out of every five can be maintained in good condition without iletin by proper care and diet unless he is under going some acute infection or some surgical operation when iletin should be given. Iletin is claimed to be a specific in the treatment of diabetic coma. Giving glucose, of course, in addition. These diet tables I have mentioned are, of course, elastic and are to be varied according to conditions such as whether the patient is lean or fat and whether he is to do rather heavy, average, moderate, or very light exercise.

Children require more protein per kilogram than do adults. Fats should not be run so high. And children should perhaps be treated with iletin even if the disease is not very severe. They need a higher carbohydrate diet, hence the more need for iletin.

I see no reason why a bright high school graduate, interested in the case, will not grasp the details of diet and management as quickly as will a nurse; such in fact is the case in my limited experience.

Children require 80 to 100 calories daily per kilo of body weight—adults much less—30 to 50 C per kilo.

A Case Report

FRANK L. ABBEY, M.D., Newton

Miss L. H., age 50 years, family history negative. Had children's diseases and "flu," not past menopause. Never very strong, but no serious sickness. Last spring noticed a small lump in the breast, slightly tender, and occasional shooting pains but not severe. Consulted her physician who advised against use of caustic paste and in favor of surgery. But a relative having had treatment for an epithelioma at a "cancer institute," which was satisfactory, persuaded her to go there instead of following her physician's advice. Paste was applied August 31st over a large extent of surface, extending from near the sternum to and including the axillary space. The resulting slough was about four inches in width and included the breast and all tissues to the ribs. Patient was kept fairly free from pain by hypodermic injections, presumably morphine. Her appetite, sleep, and general condition were fair up to the time of her dismissal, September 20th. When sent home, she was furnished with a quantity of dressing material, including a salve like had been applied before her dismissal. She was advised not to consult a physician and that even the services of a nurse would be superfluous. She reached her home in Newton, Sunday morning, September 21st. Monday morning not having the courage and strength to do the dressing, she called the city nurse who used the dressings and followed the directions provided. The next morning early, she called the lady with whom she made her home saying that she did not feel well—was chilly and aching. Some heat was applied and when the nurse came she found a light rise of temperature. Patient remained in bed that day. Next morning there was a severe chill, followed by a temperature of 103 degrees, as taken by the nurse. The nurse insisted that a physician be called. I saw the patient for the first time about 10:00 o'clock that morning, Wednesday, September 24th. Temperature 104½, muscular pains, dizziness, restlessness. There was a very red patch on the face beginning at the nose and extending both ways across the cheeks, resembling a facial erysipelas but not so brawny and lacking the distinct line of demarcation usually found in that condition. That, however, was my first diagnosis. There was considerable discharge from the wound, but with little odor. The margins of the extensive slough were well

defined and not showing signs of any severe septic process. Slight constipation which yielded to salines. Urination not painful nor frequent. Had been normal amount during first 24 hours. Urine contained a large amount of albumin, some blood, and many granular and hyaline casts. Sulphate of magnesia solution on gauze compresses were applied to the face. By evening the redness of the face had almost disappeared. There was a slight re-

orrhagic, and necrotic. There was considerable oozing from these lesions but practically none from the mucous surface. At first there was a coryza with a watery, slightly brownish discharge from the nose. Patient partook freely of water and other liquids and was quite thirsty. At 4:00 p. m. she quite suddenly became more irrational. Did not void urine or feces after this time. Ate and drank almost ravenously at 6:00 p. m. Axillary temperature went up to 106 with rapid feeble pulse



duction of temperature. Patient's diet was restricted to liquids and semi-solids of which she partook quite freely. No blood test was made. That night she seemed to be slightly delirious at times. At daylight, she was found to have an eruption on her face, neck, chest, and arms, which extended later over the whole body. The lesions appeared first as small red petechia similar to measles but growing rapidly and some becoming confluent till as large as a dollar. As they enlarged they changed in appearance, becoming bright red, then dark, hem-

orrhagic, and necrotic. There was considerable oozing from these lesions but practically none from the mucous surface. At first there was a coryza with a watery, slightly brownish discharge from the nose. Patient partook freely of water and other liquids and was quite thirsty. At 4:00 p. m. she quite suddenly became more irrational. Did not void urine or feces after this time. Ate and drank almost ravenously at 6:00 p. m. Axillary temperature went up to 106 with rapid feeble pulse

which could not be felt the last two hours. Lapsed into a stupor and expired about 1:30 a. m.

Treatment was principally calcium lactate by mouth and thromboplastin and fibrinogen by hypodermic.

Diagnosis of purpura fulminans on account of rapid course, great prostration and limitation of the hemorrhage to the skin surface. No autopsy. In answer to a letter giving notice of her death the "Institute" said death was probably due to erysipelas.

HISTORY OF THE KANSAS MEDICAL SOCIETY

Report of the Committee on History

The Kansas Medical Society was organized under a special charter, granted by the Territorial Legislature in 1859, which reads as follows:

An Act to Incorporate the Kansas Medical Society.

Section 1. Amory Hunting, S. B. Prentiss, J. P. Root, A. Fuller, C. F. Kobb, J. W. Robinson, J. B. Wheeler, L. C. Tolles, S. C. Harrington, A. Danford, C. E. Minor, J. Woodward, W. Madison, J. H. Phelps, O. Brown, Charles Robinson, M. F. Holladay, H. J. Canniff, A. J. Ritchie, M. Baily, J. M. Pelot, H. H. Beals, J. G. Blunt, T. Linsey, G. W. Beaumont, J. Leigh, A. Newman, H. Harttman, Wm. Graham, and their associates and successors, who shall be elected to membership as hereinafter provided, are hereby constituted as a body corporate and politic by the name of THE KANSAS MEDICAL SOCIETY, and shall have perpetual succession forever. Said Society may have a common seal, and change or alter the same at pleasure.

Section 2. That members of said Society, in their corporate capacity, may elect such officers as they shall judge necessary for its government and the management of its affairs, determine the name, power, duty and term of office of each; also the time and manner of said elections.

Section 3. Said, Society, by and in their corporate name, may have all the rights, privileges and powers of a natural person in law and equity.

Section 4. Said Society may elect such persons to membership as they shall judge proper, and shall have power to expel, suspend or disfranchise the same, as members, from all the rights and privileges of the Society; but such expulsion, suspension or disfranchisement shall be by a vote of two-thirds of all the members present at a regular meeting of said Society, of which due notice shall have been given.

Section 5. Said Society shall have full power to make and enforce by-laws, and impose and collect at law any reasonable fines, not exceeding fifty dollars, as may be provided in said by-laws, for any and every violation or infraction thereof.

Section 6. Said Society shall issue certificates of membership to all its members, under such regulations as its by-laws may prescribe, and may also grant licenses to all respectable physicians, non-graduates, who

shall, on examination, be found qualified for the practice of medicine and surgery, or either, to practice those branches for which they are found qualified.

Section 7. Any three members of said Society may organize county or auxiliary societies in any county of this Territory; and said auxiliary society, when so organized, shall have all the powers and privileges, in the corporate name which they may adopt, that are conferred by this act upon the Kansas Medical Society; and all the officers of said auxiliary societies shall be honorary members of the Kansas Medical Society.

Section 8. A meeting of the corporators, or a part thereof, shall be held in Lawrence, on February 10th, A. D. 1859, for the purpose of electing the first officers and completing the organization.

Section 9. This act to take effect and be in force from and after its passage.

A. LARZELERE,

Speaker of the House of Representatives.
C. W. BABCOCK,

President of the Council.

Approved February 10, 1859.

S. MEDARY,

Governor.

Unfortunately it has been impossible to obtain any information concerning many of the men whose names appear on this list of incorporators. Concerning the more prominent of them considerable of importance may be found in connection with the great historical events in Kansas. The following is quoted from the address of President O. D. Walker at the annual meeting of the Society in 1916.

"The history any great cause is centered around some central prominent man or group of men. The men who were the corporators of our Society in 1859 were men who came to Kansas, not for pecuniary reward, not for a life of ease, but fired with a zeal to make Kansas a free state; they endured and suffered, toiled and worked till they not only saw Kansas a free state, but nation-wide slavery abolished forever. Theirs was the mind and spirit of the Pilgrim and Puritan of New England, the Dutch of New York, the Quaker of Pennsylvania, the English planters of Virginia, the Huguenots and Scotch-Irish of the Carolinas, a mixture of Puritan and Cavalier, the mingling of which produced a Lincoln, the finest flower of the last century, the most typical and greatest of all Americans. It was this same Kansas contest which became

the inspired text of Lincoln against the "Little Giant," and undoubtedly defeated him for United States Senator, but two years later elected him President at a time when this nation stood in dire need of a strong, large hearted and patient man.

"Let us consider, for a few minutes, a few of these first corporators. No history of Kansas would be complete that did not give something of the life and work of Doctor Charles Robinson, the first governor of the state. Of him it might be said that he was one with us but not of us. As I knew him he was not in active practice, but a farmer and stockman on a large scale, and so far as I can learn he was the only one of the corporators who accumulated money and left an estate of any amount.

"If you want to moralize on this fact, I would suggest if you want to get rich, do not follow the life of a doctor.

"No doubt the public life was more to his taste than the prosy, monotonous life of a general practitioner of medicine, for I read in Dr. Cordley's History of Lawrence, he went to California in 1849 with the gold seekers and was a prominent figure in the stirring scenes which characterized the early history of that state. In those turbulent times he was severely wounded, imprisoned for several months, but he and his associates finally won the day and California was saved from the rule of thieves. We honor today Dr. Charles Robinson for the pioneer work he did in Kansas, for his wise counsel and brave heart, in a time that tried men's souls.

"Dr. S. B. Prentiss, our first president, I knew very well. His native state was Massachusetts. He practiced medicine in New York for a time, but on account of failing health, moved to Georgia, where he regained his health and did a large practice. On account of his anti-slavery principles he left Georgia and came to Kansas in 1855.

"In the history of Lawrence above referred to, the doctor is described as a Southern man with Northern principles; he was an ardent free-state man. He held several positions and did valuable service for the free-state cause; he was a calm, soft spoken man, but full of promise and persistence. During the war he served as Medical Purveyor of the State. Important as his public life may have been, zealous as he was for the cause of freedom, it was in the sick room where Doctor Prentiss will be remembered long after his public acts shall have been forgotten. And with pro-

priety it can be said of him as was said of another, "Doctor of the Old School," he did his best for the need of every man, woman and child in this wide straggling district, year in and year out, in the snow, in the heat, in the dark, in the light, without rest, for more than forty years.

"Dr. Joseph P. Root was the second president. He was a New Englander who, in his ancestry, could boast of May Flower fame. Dr. Root came to Kansas in 1856 and built the first white man's house in old Wyandotte. The house was brought in sections from Connecticut, and when put together was known as 'Dr. Root's Pill Box.' Dr. Root was an ardent free state man, and beside his great interest in his profession, he held positions of honor in his state and abroad. He was elected to the Territorial Council in 1857, was a prisoner in Lecompton when the Council was under arrest. Was elected first Lieutenant Governor of the state in 1861, served through the Civil War as Division Surgeon of the Second Kansas cavalry; was appointed by General Grant minister to Chili in 1870, received many honors from that government for work done there in handling a bad epidemic of smallpox. In 1880 he was appointed Surgeon General of the state by Governor St. John.

"Dr. Alonzo Fuller was the first temporary chairman of this Society. He was a New Englander by birth, came to Lawrence in 1857, was a member of the first board of education, was mayor of Lawrence in 1861, and filled out the unexpired term of Mayor Callomore, who was killed in the Quantrell massacre in 1863.

"Dr. Fuller was a very public spirited man, and took great interest in the beautifying of his home town, and today Lawrence, with its beautiful shade trees, parks and good schools, is indebted to Dr. Fuller for what he contributed in the way of suggestions made when mayor of the town and for his subsequent work. As a physician, he was clear headed, conservative, of fine culture and ripe scholarship, a man who had the confidence of the entire community, and whose valued opinion was sought not only in his chosen profession, but in all matters of public welfare.

"Dr. Thomas Lindsay, father of our own Dr. W. S. Lindsay, was another corporator. He came to Kansas in 1857, located on a claim in Anderson County one year before the location of the town site of Garnett, and a few miles from the then flourishing point in Anderson County—

Mount Gilead—where Dr. J. B. Blunt, afterwards General Blunt, practiced medicine. Dr. Lindsay was a member of the Territorial Legislature, served through the war as surgeon of the Twelfth Kansas, and was a member of the State Legislature after the war; he was a man of strong convictions, a lover of peace by nature, but unafraid to face danger of any sort when duty called.

"Doctor J. B. Blunt, whose name we find among the incorporators of our Society, perhaps distinguished himself more in military affairs than in his profession. He served his country with distinction during the Civil War, reaching the rank of Major General. For this more spectacular service he will be remembered rather than for the quiet, unostentatious life of a doctor, no matter how important that life may have been.

"It is quite worthy of note that the first governor and lieutenant governor of the state were physicians and incorporators of our Society.

"Doctor Albert Newman, of Lawrence, another man whom I well remember, was a quiet, dignified man of fine culture and learning. He was the first corresponding secretary of the Society, and was elected president in 1867."

In addition to these sketches by Dr. Walker, some facts have been collected concerning a few other of these incorporators.

Jonathan Leigh, who was born in Tennessee, moved to Missouri when he was ten years of age, later studied medicine, moved to Kansas in 1856 and located at Iowa Point in Doniphan county and from there moved to Highland where he continued in the practice of medicine until 1893, when he moved to Hiawatha. He retired from practice at the age of 94.

Henry J. Canniff was born in New York State. He studied medicine and practiced in Ohio and in Illinois until 1857 when he came to Kansas. He first located at Prairie City, where he practiced medicine, was president of the town company, captain of a company of free state men and justice of the peace. He moved to Lawrence in 1860, was a member of the legislature, was a director of the Lawrence and Galveston R. R. Co. He was for four years a deputy U. S. Marshall.

John Winter Robinson was born and educated in Maine and practiced medicine there. He came to Kansas in 1857 on account of his health, locating at Manhattan. He was later elected Secretary of State and

moved to Topeka. He entered the Army as a surgeon and died in Fort Smith, Arkansas, in 1863.

Addison Danford was born in New Hampshire in 1829. He came to Kansas in 1857. The county seat of Linn county, Mound City, was surveyed and laid out by him. He was admitted to the Bar in 1858 and practiced law in Mound City until 1863 when he moved to Fort Scott. He was a member of the House of Representatives in 1857 and 1858; was a member of the Leavenworth Constitutional Convention; was a member of the Committee on Credentials at the Convention in Osawatimie in 1859; was state senator in 1865; was Attorney General in 1869 and 1870.

John B. Wheeler conducted a hotel and practiced medicine at Palermo in Doniphan county for a few years after coming to Kansas in 1856. He later moved to Troy and practiced there until his death. He was a member of the first free state legislature in 1857. He was a lieutenant colonel in the 13th Kansas Regiment until it was mustered out.

Amory Hunting, born in 1794, died at Manhattan in 1870. He came to Kansas in the early days and his name is associated with those noble men who fought the first battles and gained the first victories for freedom on Kansas soil. He was an active and zealous temperance advocate and brought about the organization of the State Temperance Society.

(To Be Continued)

—R—

Metabolism and Reflex Irritability in Anesthesia

Arthur E. Guedel, Indianapolis (*Journal A.M.A.*, Nov. 29, 1924), concludes his paper as follows: A just consideration and reflex irritability curve throughout the various ages of life, plus the influence of hyperpyrexia, emotional excitement and pathologic toxemia on this curve, will enable us better to anticipate probable anesthetic difficulties, and to plot the course and method of anesthesia for each case. Preanesthetic mediation must be directed toward the reduction of the metabolic and reflex irritability curve to a base line standard. The dose and combination of drugs must be dependent on one element, namely, the reduction of the metabolic and reflex irritability curve. This is to be accomplished through: (1) physiologic metabolic depression, and (2) depression of psychic activity to the same purpose.

Germ Killing Effect of Ultra-Violet Measured

A study of the germ killing action of ultra-violet rays has been made by the Bureau of Standards, Department of Commerce, covering the range of wave lengths from just beyond the limit of the visible spectrum down to the shortest wave lengths emitted by a mercury vapor arc in a quartz lamp.

The shortest waves were found to have the most pronounced and vigorous action, being capable, when sufficiently intense, of producing death with an exposure of only one second. Longer wave lengths required a greater intensity and acted much more slowly, but a killing action was found to result even from waves as long as 365 millionths of a millimeter, which is almost as long as the shortest waves visible to the human eye. Prior to this experiment doubt had been expressed regarding the ability of those longer waves to kill bacteria.

Bacterium Coli Communis was the victim of the tests. This germ is always found in human sewage or in waters that are polluted and likely at some time to contain typhoid. The germs were turned loose in a large volume of water and some of this water was sprayed onto petri dishes containing a solidified jelly, specially prepared to suit their tastes. Those germs not killed by the rays increased and multiplied in a few days formed colonies visible to the eye. A quartz mercury vapor lamp was used as the source of ultra violet rays, screens being interposed to cut off successive spectral ranges of the wave lengths which cause germicidal action.

Rays of sufficient intensity, it was found, could kill bacteria with an exposure of less than one second duration. A certain minimum intensity was required for this, and when using a 320 watt mercury lamp this intensity was obtained at a distance of six inches from the lamp.

When the intensity was very low the killing action was greatly retarded. In some experiments an exposure of 75 to 80 seconds was required. On still lower intensities there was some indication that the bacteria were stimulated instead of being killed.

Other tests were made to compare the relative value of continuous and intermittent exposures. It was found that the killing effect was proportional to the total exposure, whether this was given all at once

or was divided into several short exposures with periods of rest between.

These tests are reported in Scientific Paper No. 495 of the Bureau of Standards, entitled "A Radiometric Investigation of the Germicidal Action of Ultra-Violet Radiation," by W. W. Coblenz and H. R. Fulton. Copies of this paper may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C. The price is 20 cents.

—R—

UNIVERSITY OF KANSAS CLINICS

CLINIC OF DR. SAM H. SNIDER

BRONCHITIS AND BRONCHIETATIC ABSCESS

History of case: E. R., female, age 36; married; housewife.

Chief Complaint: Cough and expectoration, lack of endurance. Patient states that she has had cough "more or less all her life," always subject to frequent "head colds" which often lead to cough. Has been worse for past year or two. Has not lost weight but is weak and somewhat dyspnoeic. Appetite good. Does not think that she has had fever except when she has acute cold. No hemoptysis. Expectorates large quantities of whitish or yellowish sputum, particularly at morning. Often has interval of several hours without cough then has a severe attack of coughing with profuse expectoration.

Personal History: General health has been splendid with exception of complaint described above. Had measles and whooping cough in childhood. No other illness except recurrent colds and cough. She has two children, age 13 and 11 years. In good health. No miscarriages.

Family History: Father and mother living and well. One brother and one sister living and well. No history of chronic respiratory disease in family.

Physical Examination: The patient is a fairly well nourished white woman. Her color is good. Face and eyes normal. Pupils react to light and accommodation. Teeth: There are two crowned teeth. Gums in good condition. Throat: Tonsils have been cleanly removed. Pharynx: Apparently not inflamed. Chest: Shape normal. Expansion fair and about equal on two sides. Percussion and palpation of chest apparently normal. Auscultation: Persistent, medium, moist rales are heard over right lower front from third intercostal space to base. No other abnormal auscultatory findings. Heart dulness normal, sounds clear and regular. No mur-

murs heard before or after exercise of fifty hops. Blood pressure 120-85.

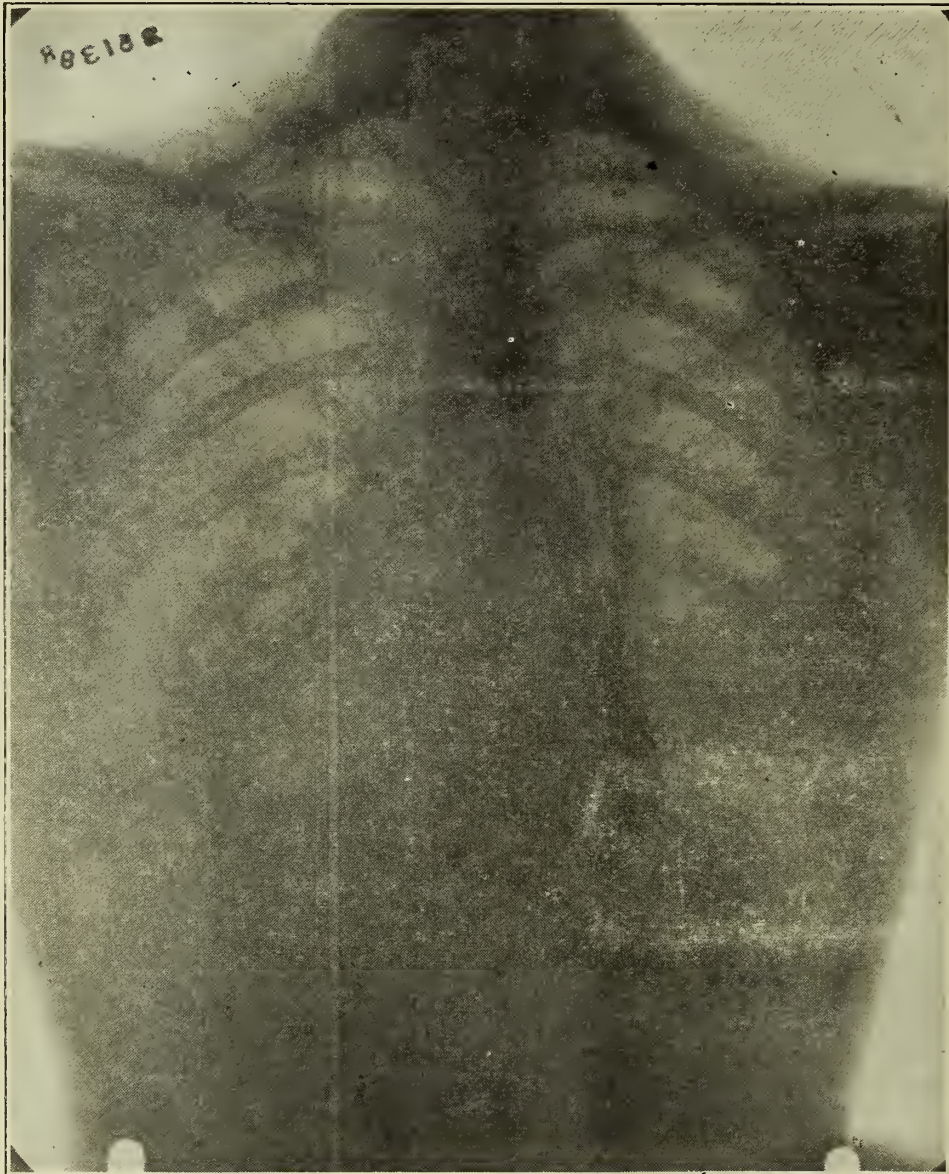
Abdomen: Soft and flat, no masses, no tenderness. Apparently normal..

Extremities: No clubbing of fingers.

Reflexes: Normal.

Urinalysis: No abnormal findings on

lower lobe. This density is not uniform but has the appearance of infiltration rather than that of consolidation. The center of the area is dense and a vague ring shadow is seen which suggests a cavity. The left lung and the right upper lung are apparently normal.



routine urinalysis.

Leucocyte Count: 11,200, 72%. Polymorphonuclear neutrophils.

Sputum: Three specimens have been examined, no tubercle bacilli have been found. The sputum is yellowish, mucopurulent, moderately tenacious.

X-Ray: A Radiograph of the chest shows a definite increase in density in the right

DISCUSSION

Chronic cough is a symptom which is often encountered and always demands careful consideration because it may be due to underlying pathology of a serious nature. The more common conditions which may produce chronic cough are:

1. New growth in lung or mediastinum.
2. Thoracic aneurysm.

3. Simple Bronchitis.
4. Pulmonary Tuberculosis.
5. Bronchiectasis.

NEW GROWTH

New growths in the mediastinum may be primary or metastatic. The primary new growths in the mediastinum nearly always originate in the lymph glands and may be: (1) Lymphosarcoma or (2) the enlarged glands of Hodgkins Disease. Chronic cough due to these conditions is usually accompanied by hoarseness due to interference with the function of the recurrent laryngeal nerve. Furthermore careful examination in these cases nearly always shows other evidences of mediastinal tumor such as dulness behind the upper sternum or pulsations in this region. Metastatic new growths of lungs or mediastinum are not uncommon, particularly in carcinoma of the breast. This patient has not had any decline in general health or loss of weight such as might be expected from an occult cancer. Neither does physical examination or x-ray (as we have seen) show any evidence of either primary or metastatic malignancy in the chest.

ANEURYSM

Thoracic aneurysm is a rather frequent cause of chronic cough. This cough is usually dry or only slightly productive and is very likely to be of a "brassy" character. Furthermore, thoracic aneurysm is accompanied by other signs of syphilis such as history of a primary lesion, history of secondary manifestations of syphilis, unequal or irregular pupils, leukoplakia buccalis, or a positive Wassermann test. None of these are found in this case and there are no evidences of an abnormal mass in the mediastinum on physical examination.

SIMPLE BRONCHITIS

There has been doubt in the minds of many clinicians and pathologists, recently, as to whether there is such a condition as chronic bronchitis per se. I do not wish to enter into this question at this time but will say that I do not consider any diagnosis of chronic bronchitis complete without careful investigation of the case to determine what chemical, mechanical, or infectious agent is responsible for the irritation which gives rise to the cough and expectoration. Simple bronchitis is characterized by remissions and exacerbations, being usually worse during the winter or during cold damp weather. The physical signs are also quite changeable from day to day. In general they consist of coarse or medium moist rales, bubbling rales, or

sibilant and sonorous rales or all of these, the rales being widely distributed, usually more numerous over the lower half of the chest, and not constant from day to day. If chronic bronchitis may be said to produce any characteristic x-ray findings they are those of a generalized peribronchial thickening distributed over the whole chest and most marked in the lower half of the chest.

PULMONARY TUBERCULOSIS

Chronic cough is a symptom which should always put the clinician on the lookout for pulmonary tuberculosis. Most patients having active tuberculosis will give a history of weakness, loss of appetite, loss of weight, undue fatigue on moderate exertion or pain in the chest while history of hemoptysis, afternoon fever, or night-sweats is relatively common in pulmonary tuberculosis.

The physical findings in the chest of the phthisical patient are most often limited to the upper half of the chest while rales confined to the lower half of the chest are rare in pulmonary tuberculosis. Likewise radiological evidences of pathology restricted to the lower half of the lungs are rarely to be ascribed to tuberculosis.

BRONCHIECTASIS

Bronchiectasis is a condition of which the etiology and developmental pathology are but poorly understood. We know that the process when well advanced is characteristic of the bronchial tree and that this dilatation usually occurs in the lower portion of the bronchial tree. The dilatation gives rise to retention of secretions and these secretions, being infected, keep up a constant irritation with paroxysms of coughing. The cough may, in turn, cause unusual mechanical strain on the weakened bronchial walls and thus tend to lead to further dilatation with the formation of a bronchiectatic abscess.

Since the bronchiectasis usually occurs in the lower portion of the bronchial tree there is lessened tendency to drainage and cough when the patient is in the erect posture. The regular quiet respiration of sleep gives respite from the symptoms for a time but awakening, with attendant change of position and return of cough, results in expectoration of a quantity of purulent secretion and these periodic paroxysms of coughing with profuse expectoration interspersed with intervals of quiet and comfort are characteristic of bronchiectasis.

In cases with extreme dilatation and

marked retention there is likely to be putrefaction of the retained secretions and the sputum may have a very foul odor. Advanced cases of this sort are not very frequent in younger persons because the bronchiectasis—though it may begin in early life—does not often reach an advanced stage until the lapse of many years. Occasionally one encounters a case of relatively advanced bronchiectasis in a young adult while congenial cases of bronchiectasis have been described.

The radiograph is of very great value in making the diagnosis of bronchiectasis and particularly of bronchiectatic abscess. In most cases good radiographs will show a more or less localized increase in density about a portion of the bronchial tree, usually in the lower portion of the lung. This density is due in part to a peribronchial fibrosis and in part to a more or less localized broncho-pneumonia in the affected area. In old advanced cases with abscess of long duration we are often able to make out the walls of the abscess in the midst of the infiltrated and pneumonic area. The accompanying radiograph shows only faintly the outlines of the abscess. One must not hold to the idea that a peribronchial infiltration in the lower chest is always due to bronchiectasis. I have seen two patients within the past year whose pathology by both physical and radiograph examination was confined to the lower half of the chest yet in these two cases tubercle bacilli were found in the sputum.

On the other hand bronchiectasis is occasionally found in the upper portion of the chest and the clinician must always be on his guard to be sure that such cases are not mistaken for tuberculosis. In doubtful cases the sputum should be examined repeatedly and with great care to determine if tubercle bacilli are present and a final diagnosis should be reached only after long and careful study.

The case under discussion appears to have the characteristic features of bronchiectasis, i. e.

(a) Chronic paroxysmal cough and expectoration with intervals of freedom from cough.

(b) Cough and expectoration affected by posture.

(c) History of insidious onset and development.

(d) Relatively mild toxemia.

(e) Rales and radiographic evidence of infiltration restricted to the lower half of the chest.

(f) Tubercle bacilli not found in the sputum.

DIAGNOSIS: Bronchiectatic abscess—right lower lobe.

TREATMENT

1. Preventive.—Although our knowledge of the etiology and development of bronchiectasis is limited and largely theoretical it seems reasonable to assume that chronic or recurrent infections of the upper air passages plays a very large part in the production of this disease. Recent clinical observations tend to prove this theory. Hence if one would prevent bronchiectasis he should rid the patient of foci of chronic or recurrent infection in the nose, mouth and pharynx. Repeated "head colds;" each ultimately spreading to the lower air passages, cannot but increase the risk of a bronchiectasis in later life. The same should also be said regarding any mechanical or chemical irritants which produce cough. Recent reform of the working conditions in our factories and shops will lessen the incidence of bronchitis and bronchiectasis through a decrease in the inhalation of dust and of noxious fumes.

When the condition of bronchiectasis is well established complete restoration to normal can scarcely be obtained. But proper measures give a very great degree of relief and comfort and definitely prolong the life of the patient.

These measures are:

1. Elimination of foci of chronic or recurrent infection in the upper air passage.

2. Postural drainage.

3. Potassium iodide and salvarsan.

4. Inhalations.

5. Surgery.

Although one may not hope to cure bronchiectasis by removal of a focus of infection which may have been a large factor in the production of the disease, one should remove that focus because of the deleterious effect which it may have on the future of the case. Recurrent colds are the bane of the existence of these patients and any measure which lessens the risk of recurrent colds is well worth while. In this case the mouth, throat, and nose will be carefully examined and if infection be discovered there an attempt will be made to remove it.

Postural drainage is a measure which is easily applied in a case like this and is productive of a great measure of relief. Determine by experiment whether it is possible to secure more complete drainage by lying on one side, by assuming the knee-chest posture or by lying with the head and

chest hanging over the side of the bed. If a posture is found which facilitates drainage that posture should be assumed for a period of several minutes four or five times a day or oftener.

Potassium iodide has given marked relief in this condition possibly because of the lessened tenacity of the sputum and consequently freer drainage. Lately—having noticed a predominance of *B. fusiformis* in the expectoration from bronchiectatic abscesses some clinicians have used arsprenamine and have reported good results. I have not had sufficient experience with this form of therapy in bronchiectasis to venture an opinion as to its efficacy.

Direct medication in the form of medicated steam has given marked relief in many of my cases. Compound tincture of benzoin has a pleasant demulcent effect but I prefer an astringent vapor and for that purpose use a mixture of menthol, camphor and oil of eucalyptus in liquid petrolatum. This patient states that she has expectorated less since she began to use this treatment. The disappointing feature of such treatment is that it gives only temporary relief and becomes less efficacious with continued use.

Administration of creosote lessens the tendency to irritative and putrefactive changes of the secretions of the cavity. The creosote is often administered by mouth, it seems to give much better results when given in the form of inhalations.

Lastly comes surgery. Drainage of the bronchiectatic abscess through the thoracic wall has been done. This may not effect a cure. Various operations have been devised to collapse the cavity by collapsing the thoracic wall. The results of this treatment are not always proportionate to the magnitude of the operation.

Lobectomy cures the condition by removal of the seat of the pathology. The mortality of this operation is high and it seems rather heroic treatment for any cases that are not otherwise hopeless.

The treatment in this case will consist of postural drainage, potassium iodide inhalations and removal of any focus of infection which may be discovered in the upper respiratory tract. After these measures have been used we may resort to salvarsan to see if further benefit can be obtained.

—————R—————

Recently a man committed suicide because he preferred death to facing the disgrace of being convicted of embezzlement.

The columns of the newspapers are constantly reporting similar instances of men and women who prefer death to exposure of their crimes or mistakes, often minor offenses against society that mean only social ostracism or newspaper notoriety.

—————R—————

A Physiologic Consideration of the Gallbladder

On the basis of data obtained from his own experiments and from the results of the many carefully conducted researches of other investigators, an hypothesis of a function of the gallbladder has been formulated by FRANK C. MANN, Rochester, Minn., (*Journal A.M.A.*, Sept. 13, 1924). He has come to consider the gallbladder as a part of a mechanism whereby the secretory activity of the liver is correlated with that of the gastro-intestinal tract. Anatomically, the gallbladder must be considered a sampling apparatus, in view of the fact that only a portion of the total amount of bile secreted ever enters it. The gallbladder is filled mostly during active digestion. This fact can also be considered as important in relation to the flow of bile and regulatory theories. The sphincter of the choleduct can as readily be considered a necessary mechanism for filling the gallbladder as for preventing the escape of bile into the intestine. The concentrating activity of the gallbladder would imply that some element of the bile is of value, and bile salts, as in the concentration in the gallbladder, are an efficient cholagogue. The most important objection to such a hypothesis is the question concerning the emptying of the gallbladder. Thus far it has not been proved that the gallbladder empties, or, in fact, that it can empty. Furthermore, no reciprocal physiologic action between the sphincter of the choleduct and the gallbladder has even been demonstrated, although many observers have suggested this as a possibility. One series of experiments performed by Mann gives some support to the possibility that the gallbladder bears some relation to hepatic activity. This experiment has been repeated several times on different animals, and the results have been uniformly the same.

—————R—————

Surgeon General Cummings is reported as saying that the average span of life is now fifty-six years. This is a gain of 23 years since 1850. The microscope is credited, largely, with the stretching of longevity.

THE JOURNAL

of the

Kansas Medical Society

W. E. McVEY, M.D. - - Editor

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MEETING OF THE COUNCIL

The regular mid-winter meeting of the Council was held in the Elks building, Kansas City, Kan., January 20th.

There were present Drs. O'Donnell, Hassig and Gray, ex-officio member of the council, and councillors Goddard, Davis, Stoner, Dillon, Kenney, Mitchell, Fee, Mason, Edgerton, Axtell and Murdock.

Dr. Davis, chairman of the committee of arrangements of the Shawnee County Society, reported that Representative Hall had been secured for the meetings and that the Hotel Kansan had been selected as headquarters. Several prominent men have been secured for the program.

The Council voted unanimously that the chairman of the committee on legislation be instructed to assist in every way the securing of adequate appropriations for the completion of the medical school at Rose-dale.

The Treasurer of the Society made a report on the present status of the Society's finances. The Editor of the Journal made a report on the business of the Journal for the year.

The Treasurer's report showed that during the past year the expense of the Society

has exceeded its income by something over a thousand dollars.

On the strength of this report a resolution to amend the constitution so that the dues may be raised to \$5.00 instead of \$3.00 and that \$2.00 instead of \$1.00 be placed in the defense fund, was presented. This seemed to be an emergency measure and in order that it may be acted upon at the next annual meeting it is required that it shall be approved by the Council and published in two numbers of the Journal prior to the annual meeting. The Council therefore approved the resolution to amend the constitution and ordered its publication as required. An official copy of the resolution appears in another place in this number.

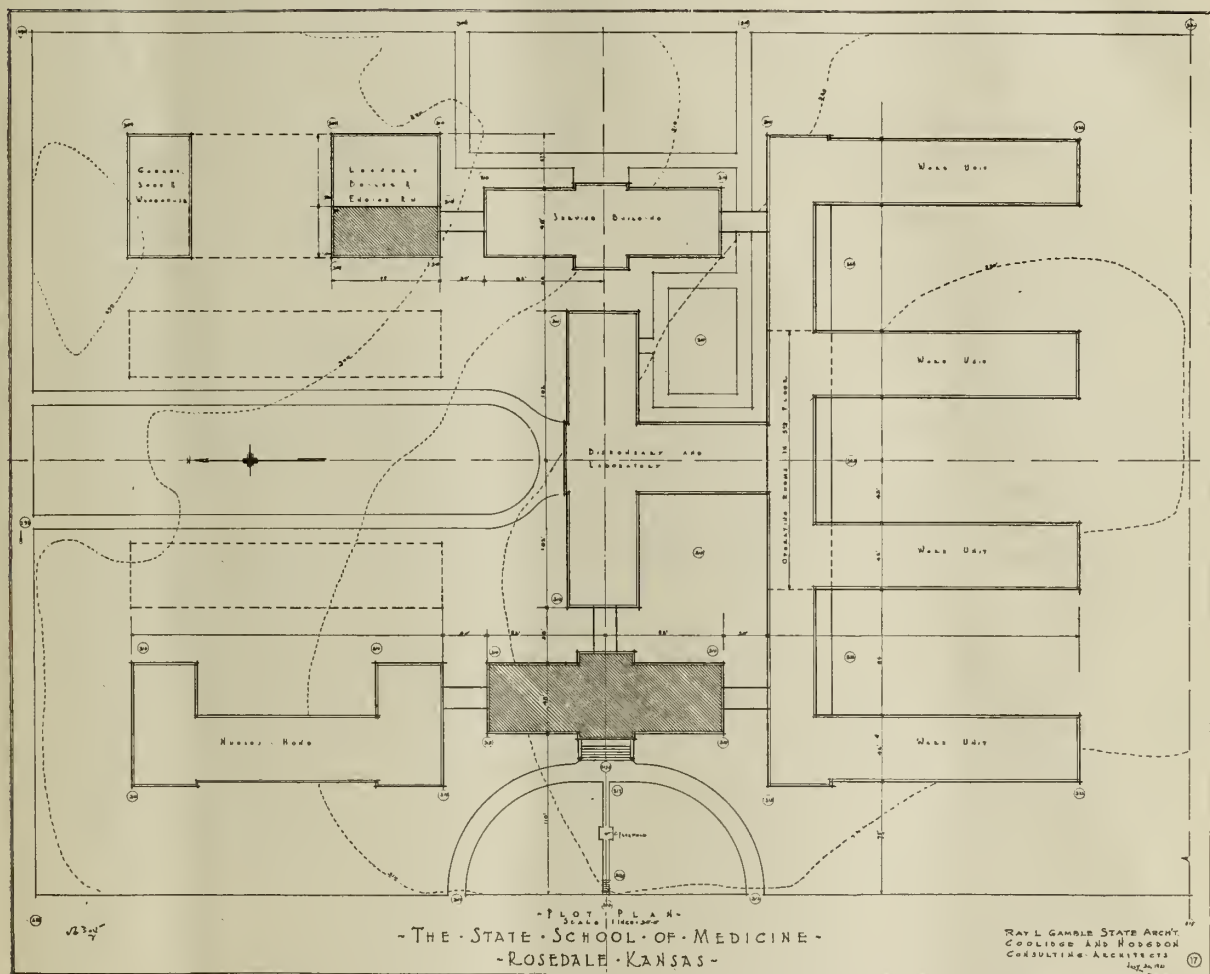
In the evening the officers of the Society and the members of the Council were guests of the Wyandotte County Society at its annual banquet. Besides enjoying an excellent dinner they had the pleasure of hearing a very interesting lecture by Dr. Schwartz of Washington University School of Medicine, and viewing a very instructive film showing the physiologic movements of the stomach.

MUST INCREASE DUES

The report of the treasurer at the mid-winter meeting of the Council showed that the expenses of the society for the year had considerably exceeded the income.

This state of our finances has been anticipated for several years and the council has urged the strictest economy in all society endeavors. Nothing has been expended in the way of educational propaganda, such as is carried on by other states. No concerted effort has been made to organize new county societies. No campaign has been put on for new members. These things cost money and the money has not been plentiful.

These things must be done if we are to progress, if we are to keep pace with other state societies. There are state societies that spend more for public lectures, for health literature, cancer clinics and tuberculosis clinics, than the whole of our in-



The Board of Administration has been requested to recommend to the Legislature an appropriation of \$705,000.00 for the erection of two buildings for the State School of Medicine at Kansas City, Kas. The larger is the "School, Laboratory and Dispensary Building" which the State Architect estimates will cost \$550,000.00. This will bring the library, laboratory, museum, dispensary and class rooms now inadequate and one mile away adjacent to the hospital and add 40 beds to the latter. The smaller building is one wing of the nurses home which with equipment will cost \$155,000.00 and will house the nurses who are now scatter in six different houses 4-6 blocks away. The buildings now occupied are shaded in black the larger being used as a hospital (110 beds) and the smaller as the heating plant. The buildings for future development are unshaded.

come. They are making rapid headway and rapidly gaining the confidence of the people. In one state the medical society is given entire control of the state health department.

In several state societies the members gladly pay twenty dollars each year as dues. In very few states are the annual dues less than five dollars. We could learn of but two societies in which the dues were as low as three dollars and one of the two is our own.

The simple fact is that our annual dues are ridiculously low; they are absurdly inadequate for the work the state organization is expected to carry on. It is true that membership in the Kansas Medical Society is so cheap that its members do not appreciate its value. At least three fourths of the members belong to other organizations — non-medical organizations — in which they pay several times three dollars annual dues, and from which they derive much less benefit.

If the dues in our society were raised to ten dollars instead of five, as is proposed, we would probably lose two or three hundred members. But in two or three years they would all be in again, glad to pay ten dollars a year, because, with the funds to work with, the society could so increase its importance to the profession and in the affairs of the state that the public would also recognize membership therein as the only evidence of professional standing.

But five dollars a year will add one dollar per member to the general fund and with this amount we can meet our necessary expenses and do something in the way of publicity. We can perhaps put on a few public lectures with good moving pictures, we can put on an active organization campaign, we can have a few diagnostic clinics and can inaugurate an active campaign for periodic examinations of the apparently well. We cannot accomplish a great deal but we can make a start.

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CANCER EDUCATION PAYS

What may be accomplished by an active

state organization is shown by the report for 1924 of the Cancer Commission of the Medical Society of the State of Pennsylvania. We quote from the report as follows:

"In 1910-1911, your Commission made a survey of the cancer situation in Pennsylvania, with a view especially to showing the extent of delay that cancer cases went through before seeking adequate treatment. The report of this study was published in the Pennsylvania Medical Journal in April, 1912. Since this time a considerable amount of time, labor and money has been spent in public education by the American Society, your Commission and many other agencies.

In 1922 your Commission decided that it would be worth while to make a similar survey during the year 1923, approximately thirteen years later, to learn if possible, first: Does cancer education pay?—and also to learn how previous efforts could be improved upon.

Accordingly, in 1923, a survey was made as far as possible on exactly the same lines as in 1910. Just the same form of questionnaire was used. The tabulations were made by the same man and everything was done to make the two surveys the same."

Tabulations are given of the findings in both of these surveys and also a table of comparative data for the two years. The latter shows a marked reduction in the period of delay in practically every anatomical type of cancer in 1923 over 1910. This table is as follows:

	1910	1923
Superficial Cancers:		
1. Average time between first symptoms and operation -----	18 mo.	14.6 mo.
2. Average time between first consulting physician and operation -----	13 mo.	4.5 mo.
Deep Cancers:		
1. Average time between first symptoms and operation -----	14 mo.	8.0 mo.
2. Average time between first consulting physician and operation -----	12 mo.	3.9 mo.

The following analysis of the findings is important as it shows very definitely the attitude of the profession toward the early treatment of cancer:

"In 1910 the attitude of the general med-

ical profession to cancer gave opportunity for considerable criticism. A perusal of the 1,249 individual case reports in 1923 will show that the vast majority of the medical profession is now serving the community exceedingly well in regard to the institution of early medical treatment for cancer. There still remains, however, a small minority of about 10 per cent whose attitude is far from the most desirable. This can perhaps be best illustrated by analyzing the reports for breast and uterine cervix cancers, as these are the largest and most representative classes.

"In 1910, the physician first consulted for breast cancer did not make a local examination in 3 per cent of the cases. In 1923, in 227 breast cases, failure to make an examination at the first visit was not noted once. However, 10 per cent of the doctors first consulted are chargeable with 77 per cent of the 'Doctor's Delay.' The average delay for this 10 per cent was 25.9 months per case. The remaining 90 per cent of doctors stood for an average delay of 0.9 months per case. Sixty-six per cent of the doctors first consulted allowed no delay at all. Twenty-nine, or 10 per cent of the women, applied to a doctor immediately after noticing a lump in the breast, a vast improvement over 1910.

"In 1910 the physician first consulted did not make a local examination in 10 per cent of the cases of uterine cervix cancer. In 1923, the figure was 7 per cent, an improvement, but still too big a figure. Ten per cent of the doctors first consulted in cervix cases are chargeable with 51 per cent of the delay. The average delay for this 10 per cent was 9.5 months per case. The remaining 90 per cent of doctors stood for an average delay of 0.9 months per case. Fifty-seven per cent of the doctors first consulted allowed no delay at all. Nineteen, or 8.5 per cent of the women applied to a doctor at once after noticing the first symptom, again a marked improvement over 1910.

"The above analysis of the breast and cervix group indicates very clearly that as far as the medical profession goes about 10 per cent still have a great deal to answer for. These are the men who, as Dr. H. K. Pancoast says, 'never go to medical meetings and never read the journals,' and who take no interest in the notion that if cancer is to be treated successfully it must be treated early."

The results here recorded for the twelve

years of effort on the part of the Pennsylvania State Society in connection with other agencies can be duplicated by our society, if systematic plans are made and the funds necessary to meet the expense provided.

NEEDS OF THE MEDICAL SCHOOL

There are many of us, no doubt, that have valuable ideas as to the construction of a medical school plant and as to how a medical school should be conducted. If each of us presented his views upon these subjects there would be room for endless argument. But there is no room for argument on the proposition before us at this time.

We have a medical school that is twenty years old. It is presumably permanently located at Rosedale. A site consisting of sixteen acres was selected by a committee appointed by the legislature. Upon this site a \$500,000 building has been erected.

There are certain things that are very definitely and positively needed to complete the plant and to conduct a class A medical school.

Under present conditions the clinical school is scattered, part of the work is done at the new building and another part at the old site a considerable distance away.

The first need is another building on the new site, a dispensary and laboratory building that will house the out patient department and will give room also for the library which should be easily accessible to the doctors and students. It will house the departments of pathology and pharmacology and provide a number of teaching laboratories. Those in use now are inadequate and in the old building a mile away. It may also afford additional room for hospital beds. This building as it was originally planned will cost \$550,000.

The next most important and immediate need is a nurses home. It is necessary now to house the nurses in a number of rented dwelling houses scattered and five or six blocks from the hospital. Under present conditions that is almost an impossible situ-

ation for a successful training school and for securing efficient service. There can be no sensible argument against a nurses home as an emergency requirement. A home such as required for the number of nurses necessary to care for the hospital patients will cost, with furniture and equipment, \$150,000.

Another very important and immediate need is new x-ray equipment and other equipment for physiotherapy. The present equipment is obsolete and much of the work must be sent outside, which deprives the student of a kind of instruction that is of the utmost importance in his medical education. The equipment required for this department will cost at least \$30,000.

These are the needs of the medical school as it now stands, not visionary requirements, but actual needs. To supply these actual needs requires an appropriation of approximately \$730,000.

Fully as important for the future development of the school, but not so immediate, is the need for bringing all of the departments of the medical school to Rosedale. There is certainly no need at this time to reopen the discussion on location. It has been settled to the satisfaction of practically every one concerned and, from the view point of economy and efficiency, no better location has been suggested.

Certainly there would be no less requirement for buildings if the location were changed, but in order to consolidate the school at least one additional building, besides those already mentioned, will be required at Rosedale. This building should be so constructed as to care for all of the instruction, laboratory and didactic, that is now given at Lawrence.

Doubtless the school of medicine could be conducted for a few years under the present conditions, in a lame and halting way, discouraging to the more ambitious members of the faculty, disheartening to the student body, disappointing to the profession of the state, and disqualifying to the eyes of those who have to determine the

standing of medical schools in the United States.

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GUESTS AT THE ANNUAL MEETING

The following will be guests of honor at the annual meeting of the State Society at Topeka, May 5, 6, 7, and will deliver addresses:

Dr. M. F. Engman, St. Louis, Mo., "Syphilis."

Dr. H. R. Allen, Indianapolis, Ind., "Club Feet."

Dr. H. M. Richter, Chicago, Ill., "Some Phases of Gastric Surgery."

Dr. F. M. Smithies, Chicago, Ill., "The Modern Conception of Peptic Ulcer with Report of Results of Treating 470 Cases by the Physiologic Rest Method."

Dr. Curran Pope, Louisville, Ky. Subject not yet announced.

The Secretary also has reason to hope that the Society will be honored by the presence of Dr. Haggard, President-elect of the American Medical Association.

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OFFICIAL NOTICE

RESOLUTION TO AMEND THE CONSTITUTION

At a meeting of the Council of the Kansas Medical Society, held in Kansas City, Kan., January 20, the following resolution to amend the Constitution was approved and recommended to the House of Delegates for their consideration at our next annual meeting:

"Resolved, That Section 1 of Article XIII of the Constitution be amended by striking out \$3.00 in the fifth line of said section and inserting therefor, 'five dollars,' and that Section 2 of Article XIII be amended by striking out the word 'one' in the first line of said section and inserting therefor the word 'two'."

The resolution was approved by the unanimous vote of those present, and was ordered published in two different issues of the Journal, in compliance with Article XVI of the Constitution.

J. F. HASSIG, M.D., Secretary.

February 2, 1925.

In Memorium—Dr. Clarence Case Goddard

Dr. Goddard has passed on after a long and useful career. It is well for us who remain to stop for a moment in appreciative contemplation of his life and character and to pay a little tribute to his memory.

Dr. Goddard was perhaps the most widely known member of the medical profession in our state. His long-time faithful attendance at every medical gathering and his activity in public affairs brought him an ever-widening circle of acquaintance. And those who knew him best all loved him. He was the Nestor of our state society. He was always on hand whenever the society met, and was always ready to take part and lend a hand or a word. His counsel was always timely and good. Wherever he went he seemed to radiate the genial warmth of his personality.

He had a droll humor and a keen wit that often were in evidence. He could do more with these as weapons than could many others with well studied logic and weighty argument. And these latter he was well able to use too on occasion. But he liked best to win his point by the short and pungent method.

He always seemed to be in perfect control of himself, running on an even keel, well poised, banners flying. He was not easily carried away by the fads of the hour. When he espoused any new thing it was generally found to be something worth while. He was quick to see the shams and equally quick to denounce them.

Dr. Goddard was the incarnation of friendliness. His big body housed an equally big soul. One could sense his geniality like the warmth from a radiant stove. If he liked you, you felt it most kindly. If he didn't like you, you were apt to get scorched if you got too near.

He was at his best, for many years, as an after-dinner speaker. A medical banquet was not quite a success without Goddard on the postprandial menu. He would speak more or less briefly, in his droll way, and then he would recite one or more of the many poems which he kept in stock for such occasions. The combination was usually very effective. But the effectiveness was greatly enhanced by the fact that the hearers liked the speaker. And that is the thing most to be desired by any speaker—that the hearts of the hearers are predisposed in his favor.

Of course Dr. Goddard was best known

by those who were with him most. It was the good fortune of some of us to have spent many pleasant hours with him, in quiet corners here and there, in hotel lobbies, on trains, or in his home—off stage, behind the curtain, so to speak. On such occasions one comes to know the real man, just as a doctor comes to know his sick-room patient and the husband to know his breakfast-table wife. Dr. Goddard always stood this close-up inspection well. If his philosophy was not always sanguine it was at least hopeful. He was not a pessimist.

He believed in a gospel of service, and his sense of justice gave him assurance that service was not to be without ultimate reward. A long study of the human mind and its vagaries did not, as sometimes happens, make him doubt the ultimate goal of that greatest product of evolution. If his religious convictions were in any degree heterodox, they were at least honest and consistent, and sane enough to seem capable of realization.

For some time past those who were nearest to Dr. Goddard had sadly noted the painful encroachments of age upon his vitality. Not that his mind showed any evidence of decay, but rather that it stood at bay, grimly conscious of the steady gains of the pursuing enemy. The spirit of the grand old man was game to the last, but encumbered with the ailments of the flesh how pitiful and one-sided the fight, and how inevitable the end! We cannot believe that his spirit died with his body. The strength of character, the wisdom, the qualities of heart, acquired by long years of faithful service, are surely not to be lost. We know not where he fares, or on what further quest. But let us hope—let us believe—that he is carrying on, in ever widening fields, an everbroadening existence.

O. P. D.

— R —
Criminology—A Reply

Editor, Journal of Kansas Medical Society,
Topeka, Kansas.

Dear Sir: An article in the January number of the Journal on page 23, entitled "Reflections," and signed by the anonymous "Prodigal" is a rambling reel devoted in spots and splotches to the topic of criminology.

The important reason for answering is that many physicians are considerably in the dark about the principles, functions and aspirations of the science of criminology.

A brief statement should certainly be made for those intelligent members of the profession who wish to know something beyond the immediate aspects of medicine which occupy their interests and time. The writer, for example, does not treat leprosy but is interested in chaulmoogra oil. He is not practicing obstetrics but is seriously interested in the development of labor anesthesia. Similarly, there will be many physicians, surgeons and obstetricians, and above all those whose general practice includes all three of these special activities, who will be glad to get a somewhat more clear idea of what the criminologist is and what he is trying to do.

Criminology is the medical aspect of the problem of conduct disorder. From a practical standpoint conduct disorder of an anti-social sort divides itself into those who are caught and those who are not caught. Those who are not caught (or prosecuted) are generally brought by their parents or friends to the psychiatrist's office. Those who are caught are generally taken to jail.

The criminologist assumes that as a scientist he should concern himself with trying to make the patient better and society better, rather than to concern himself with jail or justice. He feels that he should no more be concerned with "justice" in a case than he is with justice in the case of a man with syphilis or justice in the case of a woman whose husband has just inflicted a tenth pregnancy upon her. In other cases from a scientific standpoint the doctor goes ahead and does his job. He sees in what way he can make things a little better and he does it. He keeps his moralizing, his ideas of justice, etc., for the supper table.

The criminologist wants first of all to have all the cards on the table, which of course no lawyer or judge thinks of doing (in court). The scientist is interested in facts, not in evidence, which are very different things. He wants to know what the facts are about this particular offender. He wants to know the hereditary facts—family history, if you please, the social and environmental facts, the neurological facts, the chemical facts—urine and blood and spinal fluid, the x-ray facts, the psychological facts. The laboratory facts may be of outstanding importance; the physical facts may be most conspicuous, but since the psychological findings are most frequently most conspicuous, this work has required a particular development of the technique of mental examination as well as physical ex-

amination and x-ray examination, etc. Consequently it has been largely developed by the psychiatrists. This does not mean that no one else can be a criminologist, but it does mean that it is easier for a psychiatrist to do so because he has some very necessary equipment to start with.

Provided with these facts, which he ascertains in the same way that every other medical man ascertains the facts in any other medical case, he proceeds to try to arrive at a diagnosis, a prognosis and a scheme for treatment. Treatment may be 606, it may be confinement in jail for life, it may be psychotherapy, it may be to change his underwear or his parents. In any case it is treatment and not punishment and it is measured by the diagnosis, not a law statute written fifty or a hundred years ago by some people whose earnestness and seriousness was only equalled by their total ignorance of science and the scientific spirit. It is obviously as absurd to send a boy with compulsion neurosis to jail for check forging, who could be cured by psychotherapy, as it is to send an imbecile to jail for ten years for rape, when everybody knows that he is going to be paroled in a year or two so that he can do a few more rapes and then be sent back for another sentence.

Criminology is a young science; everyone that understands it at all knows that there is a vast amount to be learned about it. We are quite sure that it is far ahead of the state of existence in which the "Prodigal" conceives of it, even considering his suggestion for an unbiased, court-appointed, state-paid examination (a suggestion which is now about thirty years old and which is provided for in the Kansas statutes already and which is never used and never will be). Nothing is going to change the situation until the medical profession is consulted in regard to sick human beings whether they be sick in the feet or sick in the head or sick in the soul. We took surgery away from the barbers, and sooner or later will take criminology away from the jailers and politicians.

As a postscript, I ought to add that the physician as criminologist in no sense antagonizes the lawyer. The vast majority of the better lawyers disdain criminal practice for the simple reason that they concede the truth of the body of this article and acknowledge frankly that they have no idea what to do. They are compelled occasionally to go through certain inane, medi-

eval performances to conform with the existing statutes of criminal procedure; consequently they desert criminal law and penology, and these subjects are now dealt with by totally uninformed, out-of-job politicians, a few scattering criminal lawyers and an increasing group of certain members of the medical profession who aspire to a science of criminology and who are assisted by psychologists, sociologists and others whom they are inspiring and training in a new technique and a new point of view.

KARL A. MENNINGER, M.D.,
Topeka, Kansas.

CHIPS

The ultra scientific method of making a diagnosis in the present age, reminds one of the reason given why man has rudimentary mammary glands: If for any reason or no reason, present or remote, or by any feat of legerdemain, a man should have a baby he would be prepared to nurse it.

It is claimed that a bath at Hot Springs, Arkansas, in water at 98 degrees, lasting ten minutes, will raise the body temperature one degree, and that a vapor bath lasting three to five minutes will raise the temperature two degrees above normal and that this pyrexia will last from one to two hours. It is also claimed that there is an increase in the number of leucocytes of from two to four thousand per c.m. with a ten per cent increase in polymorphonuclear cells.

"Astronomers on Mt. Wilson tell us that they have discovered a new universe so far beyond the rim of the Milky Way that the light which left it 999,999 years ago will not reach the earth for another century. Biologists have discovered the nearest thing to nothing that can be called alive. It is a mite of living matter which is to protoplasmic cells what electrons are to atoms. These unicellae are so small that placed end to end it takes 1,270,000 of them to extend an inch high."

All colon bacillus vaccines, gonococcus serums and gonococcus vaccines have been omitted from New and Nonofficial Remedies. The Council on Pharmacy and Chemistry state that an examination of the existing evidence goes to show that these preparations are not of therapeutic value.

It should be remembered that cancer is not peculiar to grown people, but occurs among children and as a rule is more rap-

idly fatal when it so appears. Cancer in the brain is almost as frequent in children as in grown people. Census reports for 1922 show that there were 1257 deaths from cancer in persons under 25 years of age. The structures most frequently involved in young people are the brain, the bones, the kidneys and suprarenals, the lungs and pleura.

It seems to be the popular belief that the death penalty is the severest punishment that can be meted out to a criminal. Every evidence, however, that it is possible for one to weigh points to the contrary.

If distinctive classes are to be formed, eligibility should be determined by scientific accomplishments, and only those who have distinguished themselves in their chosen line of work should be honored by distinctive titles.

Such examination would not test one's faith in the science and art of medicine, but it certainly would test his faith in periodic health examinations.

The Mollgaard treatment of tuberculosis consists of the injection of a new compound, a double thiosulphate of gold and sodium which has been named *sanocrysin*. It is used with a serum obtained from horses that have received an injection of Dryer's diaplyte tubercle bacilli. Mollgaard was able to cure calves suffering from advanced pulmonary tuberculosis produced by injection of cultures of high virulence. A clinical trial is being made in Denmark on about 450 cases. Some very striking successes in severe cases have been reported. Further reports of these clinical tests will be awaited with interest.

A doctor was convicted of manslaughter in England when a woman died from an unusual obstetric accident. In the delivery, an attempt to use forceps failed because of a transverse presentation. After an hour's effort a version was done and a dead child delivered. The woman was in collapse and it was found that the uterus had come away with the placenta which was delivered without force. The attending physician thought the patient unable to undergo operation and said nothing about the accident and warned the nurse to say nothing. After a few days the patient was removed to the hospital where she died two days later. The court held that the patient was entitled to whatever chance an

operation offered. It does not appear that he was held responsible for the accident. (?)

Robert A. Schless has an article in the American Mercury on the Drug Addict. He does not regard the drug addict as such a menace to society as he is usually portrayed. If he becomes a criminal it is because of the difficulty he finds in securing the drug he requires. The author says he believes "that most drug addiction today is due directly to the Harrison Anti-Narcotic Act, which forbids the sale of narcotics without a physician's prescription." The dope peddler was a natural result of the restriction, for the price of illicitly obtained drugs went sky-high and the business became extremely profitable. The dope peddler "is but the economic result of the unsound theories of our legislators."

Ralph Major reports a case of subacute infective endocarditis that was cured with intravenous injections of gentian violet, in the Journal of the American Medical Association, January 24. Forty-eight hours after the first injection of 5 mg of gentian violet per kilogram of body weight in a 1:500 aqueous solution, the temperature was normal and a blood culture proved sterile. A second intravenous injection of gentian violet was given and several subsequent blood cultures were negative.

Our knowledge of the function of the normal spleen is still somewhat theoretical. W. J. Mayo (Boston M. & S. Journal, Jan. 1924) is of the opinion that the spleen is chiefly a mechanical filter, which removes from the blood degenerated red cells and toxic agents above colloid size—microorganisms and debris on which it acts before sending them to the liver for further detoxication and elaboration; and that it also develops lymphocytes.

In the discussion of consanguinity, Kerley, in the last edition of his work on pediatrics says: "Much has been made of the supposed unfavorable influences exerted upon the offspring by parents closely related by blood. Consanguineous marriages, however, exert very little influence on the progeny if both parents are in good health and there is no latent familial defect in either. If, on the other hand there is a decided family taint or weakness the tendency toward this weakness is inevitably exaggerated in the offspring of two persons in whom the trait is dominant. Doubtless if this inbreeding were continued through successive generations the outcome

would be disastrous because of the establishment of hereditary uniformity of type with certain unbalanced potentialities."

Eczema is losing its prestige, we will have to find another name or learn something more about skin disease. H. H. Hazen in an article on this subject in the International Clinics says: "There is no such disease entity as eczema. Many different causes can produce clinical and pathological pictures which are very similar one to the other, and which are falsely known by this name. The diagnosis of eczema should never be made."

In a recently published article on periodic health examinations the author says, "The acid test of the physician's faith in health examinations, indeed of his faith in the science and art of medicine, is that he has an annual examination made of himself." Good. But in another paragraph he says. "The equipment for the examination is available in the office of every practitioner of medicine and includes an examining table, stethoscope, weight scales, proper light for examining nose and throat, tape measure, thermometer, rubber gloves, blood pressure apparatus and urine testing outfit. Cards for testing distant and near vision may be obtained at slight expense and the same is true of the Tallqvist hemoglobin scale. *When available, the centrifuge and microscope should be used.*"

A gift of \$250,000 to Indiana university by Mr. and Mrs. William H. Coleman, of Indianapolis, for a women's hospital to be used principally for lying-in patients has been announced by officials of the university. The new hospital will be located on the medical school campus at Indianapolis and will become a training unit of the school of medicine. This new gift from Mr. and Mrs. Coleman is in addition to one of \$75,000 contributed by them last June to the school of medicine of the state university for the endowment of three chairs—ophthalmology, surgery and gynecology.

—R—

Reflections by the Prodigal

ALZHEIMER'S DISEASE

Alzheimer's disease is a new name for an old kind of insanity. The new name has not been used much as yet. It promises to be a rich find for the psychologist and pseudo-criminologist. Its favorite time for appearing is in middle age. The menopause or change of life (physiologically) in a man.

It is an erratic fitfull disease at times.

In some cases it is said "it makes grandfathers feel like Romeos" and sends them back to seas charted in their youth.

Dr. Frank Parsons Norbury, an alienist, gives the following description of the disease: "The clinical pathology of old age is as unique and interesting as that of adolescence or adult life. It has its own distinctive psychology, the underlying essential characteristic of which is atrophy. It has definite mental disorders, but the complexity of symptoms makes clinical differentiation very difficult.

Of the Senile group Alzheimer's disease demands attention because it may appear as early as the fortieth year. It shows signs of its presence often with projecting mental symptoms of despondency, anxiety, self-absorption, slight intellectual incapacities, lack of social interest, with diminishing contacts.

Memory may show a mild impairment. On the motor side may be noted a restless, imperative desire to be doing something; extraordinary attention, uncertain, eagerness in moving about, talking, etc.

A certain circumstantial talkativeness is quite characteristic. The type who talk a great deal and say little worth while. Such cases, in the home, become a great trial to themselves and to the family. They are always looking for something to happen, more particularly to themselves. The family recognizes something wrong.

The failing mental powers as shown in the fickleness of disposition, rapid changing moods, irritability, spasmodic passion, outbreaks from trivial causes, intolerance of contradiction or restriction, put the physician on his guard. These symptoms mean incipient atrophy. And when accompanied by insomnia, loss of weight and faulty elimination, need systematic methods of treatment to stay the progress of the disease. The disease as such is progressive and eventually fatal."

In other words, if a man lives long enough he will die. The name given to such a list of symptoms, during the past century was "Blab Mouth." The subject never died. The new name may be fatal. Sounds like Anheiser and it may be anti-prohibition propaganda.

But put jokes, sarcasm and hilarity aside, for Alzheimer's disease is the form of insanity the defense claims in the case of Lawrence M. Hight, former Methodist minister, on trial with Mrs. Elsie Sweetin, for

the murder of her husband, at Mt. Vernon, Illinois.

Prognosis in this case, although the case includes the whole gamut, rings in the seven hexacords, all that can be played on the human machine.

A RETRACTION

When in San Francisco in 1903 I went into a Chinese drug store, a Chinese druggist was busy with pestle and mortar pulverizing dried bugs, insects, snails, etc., and dispensing them to his customers as medicines. It was an unique experience to me. I was not unsparing in unfavorable comment upon such therapeusis in the Kansas Medical Journal at the time. Such ignorance shown by the Heathen Chinese and such gullibility by their patients was too utterly utter to be tolerated in a civilized community.

Two decades have passed in time. I have not lived in vain. Chinese civilization and professional practice in medicine has been vindicated. It has been improved upon. At any rate the medical man of today has called a hand poor John can't cover.

The "Melican" physician feeds his patient soup made from the extraneous substance or droppings or effete matter deprived of its vitamins and eliminated from the viscera of the patient, and calls it auto therapeusis. I recant and beg the Heathen Chinese's pardon, for my uncalled for and untimely criticism from lack of knowledge and wisdom.

PERSONALS

Dr. L. B. Joslin, who has been associated with Dr. C. E. Phillips of Pratt, has recently moved to Cullison.

Dr. W. H. Iliff of Baxter Springs was recently married to Miss Edna Marquis of Carterville.

Dr. J. F. Newell has moved from Highland to Parker in Linn county.

Dr. E. J. G. Shultz has recently moved from Wellington to Eldorado.

Dr. F. H. Fowler, formerly a member of the Douglas County Society at Lawrence, has now located at Cicero, Illinois.

According to the Kingman Courier, Dr. C. W. Longenecker who has been located at Kingman for some time, has moved to Norwich and will take over the practice of Dr. C. W. Price.

Dr. C. W. Price of Norwich is reported to be leaving that place for Virginia and expecting to locate in the east.

Dr. Earl D. McGill, a member of the Clay

County Society at Clyde, has moved to Denver, Colorado, and has an office at 618 Exchange Building.

Dr. J. R. Crawford, formerly of Moran, is now located at Ottawa.

Dr. C. A. Boyd has moved from Iola to Hutchinson and has an office in the Rorabaugh-Wiley Building.

Dr. J. S. Fulton, formerly of Kiowa, is now located at Emporia at 1320 State St.

DEATHS

Dr. Cyrus Wesley of Fort Dodge died in December at the age of 61, at Miami, Florida, of chronic nephritis. Dr. Wesley was graduated from the University of Louisville (Kentucky) School of Medicine in 1888.

Dr. Thaddeus C. Frazier of Coffeyville died January 2nd at Halstead. Dr. Frazier was 83 years of age. He was a Confederate veteran.

Dr. C. C. Goddard of Leavenworth, one of the best known medical authorities on mental diseases in Kansas, died at his home January 28th from a stroke of paralysis.

Dr. Goddard was born in Elmira, N. Y. 76 years ago and came with his parents to Leavenworth when he was six years old. He graduated from the Bellevue Medical School in New York City and began the practice of medicine at Leavenworth in 1873. He was an ex-president of the Kansas Medical Society and had been a member of the council for several terms.

SOCIETIES

BUTLER COUNTY SOCIETY

The annual meeting of the Butler County Medical Society was held in El Dorado, December 19. After an excellent dinner the annual election of officers was held.

Dr. C. E. Boudreau was elected president; Dr. E. C. Bunten, Augusta, vice president; Dr. E. L. Williams was re-elected secretary; Dr. R. J. Cobein, Leon, was re-elected treasurer. Drs. Anna Perkins and J. M. Devereaux were elected delegates to the annual meeting of the State Society. Dr. Hill, Augusta, was elected a member of the board of censors.

Dr. Harry Lutz and Dr. C. H. Cooke of Augusta, Dr. J. M. Devereaux and Dr. E. J. G. Shults of El Dorado, were admitted to membership.

SHAWNEE COUNTY SOCIETY

The February meeting of the Shawnee County Medical Society was held at Stor-

mont Hospital, Monday evening, February 2. The following program was given by the staff:

Dr. C. A. McGuire, "Multiple Myeloma," case report.

Dr. J. P. Kaster, "Polycystic Kidney," case report.

Dr. M. L. Bishoff, "Osteitis Deformans," case report.

Dr. R. B. Stewart, "Intraventricular Cerebral Hemorrhage," case report.

EARLE G. BROWN, Secretary.

DECATUR-NORTON COUNTY SOCIETY

The Decatur-Norton County Medical Society met in regular session at the State Sanatorium, Norton, Kan., on December 10, 1924. The morning was spent in visiting the various wards and attending a clinic where a number of cases of tuberculosis in the various stages were shown by the medical staff. At noon, luncheon was served and afterwards the following program was rendered:

1:30 Pneumothorax demonstration.

2:00 Early recognition of tuberculosis.

2:30 The care of the tuberculous. (This was under the direction of the hospital staff.)

3:00 Address, "What is the Matter With the Medical Profession in Kansas?" with apologies to William Allen White.—Dr. F. R. Smith, Goodland.

3:20 Address, "Albuminuria."—Dr. F. A. Carmichael, superintendent, state hospital, Osawatimie, Kan., the guest of honor.

4:00 Business session, in which the following officers were elected: President, C. E. Henneberger, Atwood; first vice president, H. S. Bennie, Alma; second vice president, W. A. VanDiest, Prairie View; secretary and treasurer, R. G. Breuer, Norton; censor, E. J. Beckner, Goodland; delegates, I. L. Parker, Hill City, and F. D. Kennedy, Norton.

Dr. Walter Stephenson of Edmond, and I. L. Parker of Hill City, were voted into membership.

The meeting was closed by a six o'clock dinner at the sanatorium followed by an obstetrical film from the famous Warthiem clinic of Vienna.

A vote of thanks was given Dr. F. A. Carmichael for his paper and visit to the institution, and a vote of thanks was also given Dr. C. S. Kenney for his 21 years of faithful service to the society. The president and secretary were instructed to

get something of a material nature and present to the doctor that it might be laid up among the archives.

R. G. BREUER, Secretary.

QUARTERLY MEETING OF THE GOLDEN BELT MEDICAL SOCIETY

(Held at Salina, Kan., January 8, 1925)

Neither the president, vice president or secretary being present, Dr. E. G. Ganoung, president of the Salina County Medical Society, was chosen president, pro tempore, and Dr. J. D. Colt, Sr., secretary, pro tempore.

The minutes of the previous meeting were read and approved.

The president then referred to the Order of Business of the Scientific program.

Dr. J. D. Colt, Sr. read a paper on "The Early Recognition of Interstitial Nephritis." It was freely discussed by Drs. Mowery, Padfield, J. K. Harvey, Riddell and others.

Dr. Brittain presented his paper on "Os-good-Schlatter's Disease" with lantern slides. The paper was discussed by Drs. Cheney, Mowery and Porter Brown.

The next scientific paper was given by Dr. M. T. Sudler of Lawrence. Subject, "Recent Experiences with Intestinal Obstruction." This paper was freely discussed by Drs. Mowery, Alfred O'Donnell, Riddell, Sutton, Brown and Cludas.

Dr. Brown, being absent sent his paper, which the Society decided to hold for another meeting.

Dr. C. F. Menninger gave a talk on "Mosenenthal's Functional Test of Urine," which was discussed by Drs. Sudler, Sutton, Cludas and Brown.

Bills totalling \$55.65 were presented and ordered paid.

The following applications were received and the applicants were voted into membership of the society:

Dr. W. M. Droll, Alta Vista, Kansas.

Dr. H. C. Mayer, Junction City, Kansas.

Dr. J. W. Simmons, Salina, Kansas.

Dr. H. Humfreville, Waterville, Kansas.

Dr. M. S. Gregory, Dighton, Kansas.

The resolution committee, composed of Drs. F. C. Boggs, F. L. Loveland and H. L. Chambers, on the death of Homer G. Collins, presented the following resolution which was read, approved and placed on file:

Whereas, our beloved colleague Homer G. Collins of Topeka, Kansas, died July 4th, 1924, as the result of an automobile accident; and as it is the feeling of this

society and the profession at large that the society and the profession have lost an esteemed member:

Be It Resolved: That this society express formally the regret and sorrow of its membership in this loss of our friend and colleague.

Be It Further Resolved: That these resolutions be made a part of the records of this society, and that a copy be sent to the members of his family.

It was voted to accept Dr. Menninger's invitation to hold the next meeting at Topeka, Kansas.

The scientific and business part of the program being closed the society met at the Lamar Hotel where they joined the wives and lady guests of the doctors present and enjoyed a fine banquet served by the Saline County Medical Society.

A vote of thanks was given the Saline County Medical Society by the Golden Belt Medical Society for the good time had by all.

Adjournment.

J. D. COLT, SR.,
Secretary, Pro Tempore.

—————R—————

The Early Diagnosis of True Hernia of the Diaphragm

It is the opinion of Donald P. Abbott, Chicago, (*Journal A.M.A.*, Dec. 13, 1924), that true hernia of the diaphragm, especially periesophageal, are much more common than is generally supposed. They are not found in the early stage because, owing to the fact that the sac is very small, the subjective symptoms are often slight. For the same reason, objectively, there are no findings on employing inspection, palpation, percussion and auscultation. The most important means of examination is fluoroscopic. Routine examination of the patient with the fluoroscope will reveal small periesophageal diaphragmatic hernias, which will otherwise be missed.

—————R—————

Two Cases of Amyotonia Congenita Occurring in the Same Family

The two cases reported by Gerald R. Alaben, Rockford, Ill. (*Journal A.M.A.*, Sept. 13, 1924), are of interest owing to the fact that heredity, or a familial tendency, has not been noted in the cases heretofore reported. These cases, and possibly a third, all occurred in male children in the same family, whereas, two female children in the family showed no signs of the disease.

Minutes of the Council Meeting

The annual mid-winter meeting of the Council was held on the 12th floor of the Elks building in Kansas City, Kan. Meeting was called to order at 10:30 a. m. by Dr. Alfred O'Donnell, president. Those present were Dr. Alfred O'Donnell, Dr. Geo. M. Gray, treasurer; Dr. J. F. Hassig, secretary, and the following councillors: Dr. S. Murdock, Dr. C. C. Goddard, Dr. P. S. Mitchell, Dr. O. P. Davis, Dr. J. T. Axtell, Dr. E. S. Edgerton, Dr. E. G. Mason, Dr. C. S. Kenney, Dr. J. R. Stoner, Dr. J. A. Dillon, Dr. W. F. Fee and Dr. W. E. McVey, editor of the Journal

All members of the Council were present except Dr. J. D. Riddell, who wired that he was unable to attend.

On motion the reading of the minutes of last meeting was dispensed with, because they had previously been printed in the Journal.

The Shawnee County Medical Society was permitted to use any form of advertising the 59th annual meeting of the Society, which is to be held in Topeka, May 5th, 6th and 7th, that they saw fit, provided they would defray the added expense.

Dr. Gray, the treasurer, made a partial report of our financial condition for 1924, which showed that we had a deficit of \$931.41 in the general fund and \$522.88 in the defense fund, making a total deficit of \$1,454.29 for the 12 months ending December 31, 1924.

On motion the following resolutions were adopted and recommended to the House of Delegates for their consideration at our next annual meeting; and the editor of the Journal was instructed to publish the resolutions at least twice before the next meeting:

'Resolved, That Section 1 of Article 13 be amended by substituting \$5.00 for \$3.00 in the fifth line of said section.

"Resolved, That Section 2, Article 13, be amended by substituting \$2.00 for \$1.00 in first line of said section."

It was unanimously agreed that an invitation be extended to the Chancellor of the University of Kansas to appear on the program of our next annual meeting, and also that some of the members of the faculty of the Medical Department be given a place on the program.

The Council also agreed to support any appropriation that might be asked of the present legislature relative to the building

program of the medical school at Rosedale.

The Council favors the broadcasting by radio of medical subjects which should be of interest to the public, providing they are given under the auspices of the Medical Department of Kansas University or any component county society of the Kansas Medical Society, and the name of the speaker is not announced.

Motion was made and carried that the Committee on Public Policy and Legislation be instructed to submit three times as many names of doctors as would be necessary for appointments on the various medical state boards, and submit them to the governor for his consideration.

It was decided to have a dinner meeting of the secretaries of component county societies some time during the annual session.

The Secretary was instructed to ask the American Medical Association for a speaker to address us at our next annual meeting on the subject of medical societies.

Reports of the Councilors were deferred until the annual meeting.

The Secretary's expense account of \$695.74 incurred since May 6th, which includes stenographer's salary, stamps and supplies, was allowed.

Dr. W. E. McVey was unanimously elected editor of the Journal for the ensuing year. He submitted the following report:

To the Council of the Kansas Medical Society:

If the business of the Journal be calculated on the same basis as other like publications it may be regarded as fairly profitable. There is perhaps no reason why it should be put on that basis and the amount of two dollars for each member credited to the Journal income. On this basis it has earned during the past year \$2,068.57.

The income from advertising can not be increased to any considerable extent until our membership has reached at least two thousand. The advertising rates are determined by the net circulation and do not vary much between circulations of 1,600 to 2,000. Our rate is \$150.00 per page, the Virginia Journal with a circulation of 2,150 is \$216.00 per page. An increase of \$65.00 per page would mean an increase in our revenue of \$2,000.00 on the present number of pages.

A measure now before Congress providing for increased postal rates will very seriously increase our expenses. While unable to estimate the additional cost it may be safely stated that our postal bill will be

will be 4 cents per pound for the first two zones and 10 cents for the further zones. Dr. West writes us that the measure will not likely go through at this session but certainly will be passed at a later one.

The question of continuing the Credit and Collection Bureau should be determined. This bureau has been conducted at no expense to the Society but the commissions have just about paid for the postage and stationery used. Only 176 members of the Society have taken advantage of the assistance the bureau offers since it was started and only 38 members have sent in bills during the past year.

We have had several conferences with a representative of the Aetna Co. in regard to having a medical insurance agency to handle all kinds of insurance for our members, the commissions on all policies written, less a necessary overhead charge, would be turned into the treasury of the state society or to the county societies. We have had no definite proposition although at our last interview we were promised that the matter could be arranged and that a definite plan would be supplied to us to be presented at this meeting.

Statement of the Editor in account with the Kansas Medical Society:

Received:

Journal advertising	\$4,895.88	
Sales and subscrip-		
tions	34.05	
C. & C. Bureau	196.09	
Kansas Medical So-		
cietiy	1,800.00	
Other sources	21.10	\$6,947.12

Expended:

Journal printing	2,235.00	
Paper, stock and sta-		
tionery	765.69	
Salaries and wages	2,750.00	
Postage	183.47	
C. & C. Bureau	78.77	
Miscellaneous	265.62	6,278.55

Balance \$ 668.57

Report accepted and placed on file.

It was decided that the Council will meet at 12:00 o'clock at the Kansan Hotel on the first day of the Topeka meeting.

Meeting adjourned

J. F. HASSIG, Secretary.

Louisiana has joined the ranks of states requiring a physical examination and a clean bill of health as a pre-requisite to the issuance of a marriage license. At the last

session of the legislature, the law-makers passed the Ducros Bill making it compulsory for any male applying for a marriage license to obtain from a licensed physician a certificate showing that he is free from venereal or other constitutional disease.

Shawnee, Wyandotte, Douglas Joint

Meeting

A joint meeting of the Shawnee, Wyandotte and Douglas County Societies will be held at Lawrence on Thursday, February 19, beginning at 7:30 p. m., after a dinner at 6:30 p. m., at Wiedemann's Grill Room.

The program is as follows:

"Ileus," R. C. Lowman, M.D., Kansas City, Kan.

Discussion, opened by R. B. Stewart, M.D., Topeka, Kan.

"Outline of Cardiac Irregularities," E. P. Sisson, M.D., Lawrence, Kan.

Discussion, opened by Chas. T. Menninger, M.D., Topeka, Kan.

"Some Practical Considerations of Hypertrophy of the Prostate," Arthur D. Gray, M.D., Topeka, Kan.

Discussion, opened by M. T. Sudler, M.D., Lawrence, Kan.

Medical School Notes

Chancellor E. H. Lindley attended the January meeting of the Hospital staff. We always look forward to Chancellor Lindley's visits because he stimulates more interest in the meetings and never fails to have some phase of medical education to discuss.

During the year from June 1923 to June 1924 members of the faculty read papers before 111 medical societies and published 153 scientific articles in the leading journals.

Dr. Dean Lewis, Professor of Surgery in the University of Illinois Medical School, during a recent visit to Kansas City gave a clinic for the students at the medical school.

Representative Edwards, of Marshall County visited the medical school recently. Representative Edwards is a member of the "Ways and Means Committee of the House."

Dr. T. G. Orr visited the University of Iowa Medical School last month.

The Sophomore class has just come down to Kansas City, Kan., for their second semesters' work. There are 41 students in this

class and it requires considerable planning to take care of all of them properly with the present room and equipment. The three crowded classes here now certainly impress the necessity for larger accommodations.

Dr. Henry Schwarz, Professor of Obstetrics in the Washington University Medical School, visited the Hospital a few days ago.

The Eleanor Taylor Hospital is a great addition to the teaching facilities of the medical school. There are now 23 contagious cases in the Hospital.

—R—

Your Income Tax

Your income tax for the year 1924 is less, in proportion to your income, than was the tax for 1923. A rate reduction, however, is not the only benefit afforded by the revenue act of 1924. Increase in the exemption for married persons, a 25 per cent reduction on "earned income," and other changes in revenue legislation are of immediate interest to every taxpayer.

The revenue act of 1924 requires that returns be filed by every single person whose net income for 1924 was \$1,000 or more, or whose gross income was \$5,000 or more, and by every married couple whose aggregate net income was \$2,500 or more, or whose aggregate gross income was \$5,000 or more. Last year returns were required of married couples whose aggregate net income was \$2,000 or more. Husband and wife, living together, may include the income of each in a single joint return, or each may file a separate return showing the income of each. Net income is gross income less certain specified reductions for business expenses, losses, bad debts, contributions, etc.

The period for filing returns is from January 1 to March 15, 1925. The return, accompanied by at least one-fourth of the amount of tax due, must be filed with the collector of internal revenue for the district in which the taxpayer has his legal residence or has his principal place of business.

The exemptions under the revenue act of 1924 are \$1,000 for single persons and \$2,500 for married persons living together and heads of families. In addition a \$400 credit is allowed for each person dependent upon and receiving his chief support from the taxpayer, if such person is under 18 years of age or incapable of self-support because mentally or physically defective.

The normal tax rate under the revenue

act of 1924 is 2 per cent on the first \$4,000 of net income in excess of the personal exemptions, credit for dependents, etc., 4 per cent on the next \$4,000, and 6 per cent on the balance. Under the preceding act the normal tax rate was 4 per cent on the first \$4,000 of net income above the exemptions and credits, and 8 per cent on the remaining net income.

The revenue act of 1924 contains a special provision for reduced taxes which did not appear in previous laws. All net income up to \$5,000 is considered "earned income." On this amount the taxpayer is entitled to a credit of 25 per cent of the amount of the tax.

For example, a taxpayer, single and without dependents, may have received in 1924 a salary of \$2,000 and from a real estate transaction a profit of \$3,000. His total net income was \$5,000. Without the benefit of the 25 per cent reduction his tax would be \$80. His actual tax is \$60. From his net income of \$5,000 he is allowed a personal exemption of \$1,000; the tax of 2 per cent on the first \$4,000 is \$80, one-fourth of which, or \$20, may be deducted.

For the purpose of computing this credit, in no case is the earned net income considered to be in excess of \$10,000. A taxpayer may have received for the year 1924 a net income from salary of \$20,000, but the 25 per cent credit can be applied to only one-half of this amount.

If you are single and support in your home one or more persons closely related to you and over whom you exercise family control, you are the head of a family and entitled under the revenue act of 1924 to the same personal exemption allowed a married person, \$2,500. In addition, a taxpayer is entitled to a credit of \$400 for each person dependent upon him for chief support, if such person is either under 18 years of age or incapable of self-support because mentally or physically defective. Such dependent need not be a member of the taxpayer's household. For example, an unmarried son who supports in his home an aged mother is entitled to an exemption of \$2,500 plus the \$400 credit for a dependent, a total of \$2,900. If from choice the mother lived in another city, the son, although her chief support, would be entitled only to the \$1,000 exemption, plus the \$400 credit. The mother not living with him, he is not considered the head of a family.

An exemption as the head of a family can

be claimed by only one member of a household.

The \$400 credit does not apply to the wife or husband of a taxpayer, though one may be totally dependent upon the other.

The revenue act of 1924 provides that the status of a taxpayer relative to the amount of his personal exemptions shall be determined by apportionment in accordance with the number of months the taxpayer was single, married, or the head of a family. Under the preceding act the amount of the exemption to which the taxpayer was entitled was determined by his status as a single person, a married person, or the head of a family on the last day of the taxable year, December 31, if the return was made on the calendar year basis, as most are.

For example, a taxpayer married on September 30, 1924, would be entitled to an exemption of \$1,375. For the first nine months he is classified as a single man entitling him to an exemption of \$750—three-fourths of the \$1,000 exemption allowed a single person—and for the last three months he is entitled to an exemption of

\$625—one-fourth of the \$2,500 exemption allowed a married person.

If on June 30, a taxpayer ceased being the head of a family—the support in one household of a relative or relatives being discontinued—he is allowed an exemption of \$1,750—one-half of the exemption of \$1,000 granted a single person plus one-half of the exemption of \$2,500 granted the head of a family. With regard to the \$400 credit for a dependent, the taxpayer's status is determined as of the last day of the taxable year. If, during the year, his support of such dependent ceased, he is not entitled to this credit.

In making out his income tax for the year 1924 the business man, professional man, and farmer is required to use Form 1040, regardless of whether his net income was or was not in excess of \$5,000. The smaller form 1040A is used for reporting income of \$5,000 or less derived chiefly from salaries or wages.

Forms have been sent to persons who last year filed returns of income. Failure to receive a form, however, does not relieve the taxpayer from his obligation to file a return and pay the tax within the time pre-

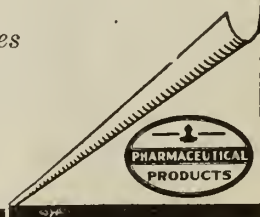
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scribed, on or before March 15, 1925. Copies of the forms may be obtained from offices of collectors of internal revenue and branch offices. The tax may be paid in full at the time of filing the return, or in four equal instalments, due on or before March 15, June 15, September 15 and December 15.

The taxpayer must include in his income-tax return for the year 1924 all items of gross income specified by law. The professional man, lawyer, doctor, dentist, must include all fees and other compensation received from professional services. He must report also gross income from all other sources, such as rentals or profits from the sale of farm lands.

Net income, upon which the tax is assessed, is gross income less certain deductions for business, expenses, losses, bad debts, contributions, etc. To take full advantage of the deductions to which entitled taxpayers should read carefully the instructions on the form under the heads of "Income from business or profession."

A professional man, such as a lawyer, doctor, or dentist, may deduct the cost of supplies used in his profession, expenses paid in the operation and repair of automobiles used in making professional calls, dues to professional journals, office rent, cost of water, light, and heat used in his office, and the hire of office assistants.

Deductions for personal or living expenses, such as repairs to the tax-payer's dwelling, cost of food, clothing, education of children, etc., are not allowed.

Losses if incurred in a taxpayer's trade or business or profession or in "any transaction entered into for profit" not compensated for by insurance or otherwise are deductible from gross income in determining net income upon which the income tax is assessed. To be allowed, losses not incurred in trade, business, or profession must conform closely to the wording of the statute. For example, a loss incurred in the sale of a tax-payer's home or automobile, which at the time of purchase was not bought with the intention of resale, is not deductible, because it was not a transaction "entered into for profit." Losses sustained in the operation of a farm as a business venture are deductible. If sustained in the operation of a farm operated merely for the pleasure of the taxpayer, they are not deductible.

Losses arising from fires, storms, ship-

wrecks, "or other casualty," or from theft, whether or not connected with a tax-payer's business, may be deducted from gross income in his 1924 income tax return. If his home or automobile is destroyed by fire or his property damaged by storm, the loss is deductible for the year in which it was incurred.

Loss of property by theft or burglary is an allowable deduction, and need not be incurred in the tax-payer's trade or business.

A loss from embezzlement is also deductible.

All losses are deductible only to the extent by which they are not compensated for by insurance or otherwise.

BOOKS

The Medical Clinics of North America (issued serially, one number every other month.) Volume VIII, Number III, November, 1924. (Philadelphia Number.) Octavo of 324 pages and 29 illustrations. Per Clinic year (July 1924 to May 1925). Paper \$12.00; cloth \$16.00 net. Philadelphia and London; W. B. Saunders Company.

The Philadelphia number of the clinics is good. It begins with a lecture on pneumonia by Reisman, then there is a clinic on non-infectious leucocytosis by Perry Pepper, a clinic by Rehfus on gastric carcinoma. Norris presents a cardiac case for diagnosis. Jessup has a clinic on essential hypertension. Boles discusses colonic irrigation in intestinal toxemia. Jonas has a clinic on hypoglycemia. Kern discusses the problem of clinical hemoglobin estimation. These are just a few of the very interesting articles appearing in this number.

Manual of Obstetrics, by John Cooke Hirst, M.D., associate in Gynecology and Obstetrics graduate School of Medicine, University of Pennsylvania; associate in Obstetrics, School of Medicine, University of Pennsylvania. Second edition, entirely reset. Twelve mo of 551 pages with 229 illustrations. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, \$4.50 net.

Those who want something for quick reference in time of need will find this manual very satisfactory. It has reached a second edition, showing that there has been a demand for it. The matter has been carefully arranged and condensed. The illustrations are very helpful, and the author's standing assures one of the accuracy of the teaching.

Practical Medicine Series, 1924. Volume II, General Surgery, edited by Albert J. Ochsner, M.D. Under the general editorial charge of Charles L. Mix, M.D. Published by The Year Book Publishers, 304 South Dearborn street, Chicago. Price, \$3.00. Price of the series, \$15.00.

This volume is one of a series of eight year books issued at various intervals dur-

ing each year. They cover the entire field of medicine and surgery, and each volume is complete on the subject of which it treats for the year prior to the time of its publication.

A Text Book of Pathology, by William G. MacCallum, M.D., professor of Pathology and Bacteriology, Johns Hopkins University, third edition, thoroughly revised. Octavo volume of 1,162 pages with 575 original illustrations. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, \$10.00 net.

In the third edition MacCallum has made some changes in the text of his book. Some few things have been omitted, considerable has been added to bring it up on those subjects in which marked advance has been made, and it is still one of the most authoritative texts on pathology.

The Practice of Pediatrics, by Charles G. Kerley, M.D., formerly professor of Diseases of Children, New York Polyclinic Medical School and Hospital, and Gaylord W. Graves, M.D., associate in Diseases of Children in the College of Physicians & Surgeons, New York City. Third edition, revised and reset. Octavo of 922 pages, 150 illustrations, Philadelphia and London: W. B. Saunders Company, 1924. Cloth, \$9.00 net.

The third edition of Kerley has been rewritten and reset. Dr. Gaylord W. Graves assisted in the preparation of the material and it is announced that he will hereafter be its co-author. Some of the older portions of the original text have been omitted, but a great deal of new matter has been added and many subjects further elaborated. Those who are familiar with the older text will appreciate this new edition. Those who have not had access to previous editions will do well to provide themselves with this one.

Medi-Cult, the A-B-C of the Medical Profession, by B. F. Lorange, M.D. Published by Richard G. Badger, Boston.

The purpose of the book the author says, is to make clear to the average layman some of the fundamental principles of health and disease. He first gives something of the history of sects and cults in medicine with the rapid advance of regular medicine. He then describes some of the commoner infections and explains the etiology. It would no doubt aid in the educational propaganda if widely circulated among the people.

A Laboratory Guide in Histology, by Leslie B. Arey, Ph.D., professor of Anatomy in the Northwestern University Medical School, Chicago. Second edition, revised. Twelve mo of 96 pages. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, \$1.25 net.

Books of this kind are of considerable

value to the student and the teacher and may also be appreciated by the practitioner who has the time and inclination for laboratory study. It seems to the writer that the value of this book could be greatly increased by the introduction of a few or many illustrations.

Manual of Psychiatry, for the Medical Student and General Practitioner, by Paul E. Bowers, M.D., examiner in Lunacy, State of California; lecturer in Neuropsychiatry, post-graduate Medical School of the University of California, Los Angeles. Octavo volume of 365 pages. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, \$3.50 net.

"Chronic alcoholism is usually an evidence of a defective nervous organization," says the author of this book. In discussing the subject of dipsomania he says: "The victim of this disorder drinks because he is mentally abnormal, whereas the chronic alcoholic becomes mentally affected because he drinks." The author's purpose is to give the general practitioner a practical treatise on psychiatry. His classifications are up to date and his descriptions of the various mental disturbances are quite clear.

International Clinics, a quarterly of illustrated clinical lectures and especially prepared original articles on various medical subjects. Edited by Henry W. Cattell, M.D., with the collaboration of numerous others. Volume IV, thirty-fourth series, 1924. Published by J. B. Lippincott Co., Philadelphia.

This is a very attractive number of the Clinics. Every article is worth reading. Seale Harris has an article on the food factors in pellagra. Bunnell discusses the nature of intestinal obstruction. Edie has a short article on periodic health examinations. Abbott and Dawson have a very well illustrated article on congenital cardiac disease that is very instructive. There are numerous other very interesting articles in the volume.

Diseases of the Heart, by Dr. Henri Vaquez, professor of the Faculty of Medicine of Paris; translated and edited by George F. Laidlaw, M.D., associate physician to the Fifth Avenue Hospital, New York City; introduction by William S. Thayer, M.D., John Hopkins Hospital, Baltimore, Md. Octavo volume of 743 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, \$8.50 net.

The profession should welcome the American edition of this book, written by the foremost cardiologist of France and the most popular book on diseases of the heart in Latin-Europe. In his introduction to this book Professor Thayer says: "Systems come and go but the rare book that presents the life work of one wise man holds

for itself a permanent place in medical literature."

The author gives a very interesting history of the development of our knowledge of cardiac diseases and refers to the work of Potain, whose pupil he was fortunate enough to be. Needless to say the subject is thoroughly covered, the discussions are unusually interesting, and the conclusions are authoritative.

Bacteria in Relation to Man, a study text in general microbiology by Jean Broadhurst, Ph.D., 304 pages. Published by J. B. Lippincott Co., Philadelphia.

This is one of Lippincott's nursing manuals and is very nicely adapted for the training schools. It begins with a general discussion of cells and continues with a study of molds, bacteria, bacterial cultivation and activities, physical and chemical agents and conditions, air, water, milk, etc.; micro-organisms and human disease.

Abt's Pediatrics, by 150 specialists, edited by Isaac A. Abt, M.D., professor of Diseases of Children, Northwestern University Medical School, Chicago. Set complete in eight octavo volumes totaling 8,000 pages with 1,500 illustrations, and separate index volume free. Now ready—Volume V containing 865 pages with 373 illustrations. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, 10.00 per volume. Sold by subscription.

The fifth volume of *Abt's Pediatrics* begins with the diseases of the face and jaws. Then there is a section on orthopedic surgery edited by Arthur Steindler.

In this volume are full discussions on tuberculosis, hereditary syphilis, the erythemas, bubonic plague, actinomycosis, glandular fever, dengue, the trypanosomiasis, Malta fever, malaria, kala azar, yellow fever, infections and immunity.

This volume carries out the idea that the work when finished will be a complete library on pediatrics. The matter has all been carefully arranged and is so presented that the essential points on any subject can be quickly found.

Operative Surgery, covering the Operative Technique involved in the operations of general and special surgery, by Warren Stone Bickham, M.D., F.A.C.S., former surgeon in charge of General Surgery, Manhattan State Hospital, New York; former visiting surgeon to Charity and to Touro Hospitals, New Orleans. In six octavo volumes totaling approximately 5,400 pages with 6,378 illustrations, mostly original and separate Desk Index Volume. Volume VI, completing the set, contains 989 pages with 1,224 illustrations. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, 10.00 per volume. Sold by subscription only. Index volume free.

The sixth and last volume of Bickham's

Surgery together with the index volume has been received. This volume begins with operations on the seminal vesicles and prostate. Then is described operations on the female urethra, the external female genitals, the vagina, perineum, uterus, ovaries, tubes, etc. Then operations on the pregnant uterus, puerperal uterus, ectopic pregnancy, operations on the newborn, etc.

The excellence of the work is shown in every detail. It is complete and thoroughly up to date. It is safe to call it the best work on the subject that has so far been published.

The *Surgical Clinics of North America* (issued serially, one number every other month). Volume IV, Number V (Portland-Seattle number October, 1924), 263 pages with 112 illustrations. Per clinic year (February, 1924, to December, 1924). Paper, \$12.00; cloth, \$10.00 net. Philadelphia and London: W. B. Saunders Company.

This is the Portland-Seattle Number. J. Tate Mason, Seattle, presents a case of carcinoma of the lip, four cases of exophthalmic goiter and a case of carcinoma of the thyroid. Alex H. Peacock, Seattle, has a case of prostatectomy in advanced years, a case of hydropyelonphrosis, one of adenomata of the prostate and one diverticulum of the urethra. A. E. Rockey, Portland, has a clinic on appendicitis. Else, Holden, Moran and Joyce, from the University of Oregon Medical School have very interesting clinics in this number.

—————R—————

Conjunctivitis Infectiosa Necroticans (Pascheff)

H. H. Stark, El Paso, Texas (*Journal A. M. A.*, Dec. 13, 1924), reports four cases corresponding clinically to the condition first described by Pascheff. The first case was thought to be squirrel plague infection, even though no history of animal inoculation could be obtained and notwithstanding the negative laboratory reports. The second and third cases brought some doubt to mind. The fourth case gave opportunity for further study. Laboratory investigations were negative. One of the ulcers was dissected for sectioning, but nothing was found. However, these cases corresponded in appearance and course to those reported by Pascheff.

—————R—————

North Carolina, Oklahoma, Pennsylvania, Indiana, Michigan, Oregon, Alabama and Utah are among the states requiring a physical examination of the male and a certificate of health precedent to the securing of a license to marry.

The Public Health Service Studies Influenza and the Common Cold

The common cold is the most prevalent illness in the United States and apparently many such colds are quite contagious, says the Surgeon General of the Public Health Service, few people failing to experience at least one attack during a twelve-month period, while many persons have three or more attacks during that time. These facts are borne out by data recently secured by officers of the Public Health Service in an investigation of influenza and the minor respiratory diseases which they are conducting at the present time.

That large numbers of persons have colds each year is common knowledge but just what percentage of people, as a rule, have attacks and the average number of colds per person per year have not been known, as the disease is not required to be reported by law, and, therefore, the morbidity records do not show that information.

In a preliminary report of the investigation that is now in progress, the Public Health Service shows that, among a fairly representative group of persons, only 10 per cent had no colds, while 90 per cent had one or more colds during a five and one-half month period; the rate for the group as a whole for that period being 1.9 cold per person, or an annual rate of 3.7 cold per person should the same rate obtain throughout the year.

The cold was found to be the predominant form of respiratory attack. The relative frequency of symptoms was shown to be very much the same for all localities, and the epidemic outbreaks occurred apparently at about the same time of year in each locality. An outbreak of colds usually occurred in all localities in October followed by a decline until the latter part of December at which time another outbreak occurred.

It is now believed that there may be a closer correlation between the common cold and influenza than was formerly thought to exist. There seem to be cases of common cold and ordinary influenza which are almost indistinguishable clinically and the bacteriological findings in the nose and trebled. The rate on the advertising pages throat of influenza sufferers and persons having a common cold are as far as the evidence goes practically the same. As a matter of fact, even in health the bacteria found in the minor respiratory diseases are nearly always present, which at once sug-

gests that good resistance provided by physical fitness is an important line of defense, since a lowered vitality and lowered resistance favor infection. We can not depend upon physical fitness alone, however, as robust persons may apparently contract a cold from an infected person.

The investigation now being undertaken by the Public Health Service is the first nation-wide study of influenza and colds ever made, and the final results are awaited with much interest, in the hope that further light will be shed on these affections which yearly cause much suffering, inconvenience, economic loss, and, in the case of influenza, even deaths, and which, as far as their cause and prevention are concerned, are still comparatively little understood.

— R —

The Value of Blood Chemistry in Pregnancy

This study in chemical examination of the blood in pregnancy was begun by CHARLES W. O. BUNKER and JOSEPH J. MUNDELL, Washington, D. C. (*Journal A. M. A.*, Sept. 13, 1924), with the idea that by a systematic monthly blood examination, they might be enabled to discover some finding that would warn of an impending toxemia, possibly before the onset of clinical evidence. Accordingly, a number of patients, when they presented themselves for engagement for confinement, were immediately started on the routine examination, which was repeated monthly. Bunker and Mundell observed fifty-two patients who had normal pregnancy and normal labor. The normal uric acid content is accepted to be from 2 to 4 mg. per hundred cubic centimeters. In these cases there was seen a steady gradual climb from 2.3 to 3.8 mg. per hundred cubic centimeters. Next to the interesting uric acid observations, the most significant finding was the pronounced steady incline in the cholesterol curve. The normal content of cholesterol is given as from 140 to 170, though slightly higher in pregnancy. These observations found it beginning at 155, and ending at the termination of pregnancy at about 220. The authors believe that it is not unreasonable to assume that the steady increase in the uric acid, especially in the last months of pregnancy, is indicative of an added strain on the kidneys; and, if this is granted, then there is a potential tendency toward mild toxicity even in normal pregnancy. The practical application suggested from this observation is that it would be a wise measure to prescribe a diet rich in cholesterol

during the latter part of pregnancy, especially in those cases showing clinical evidence of a tendency toward toxicity at the same time that proteins are restricted. That the cholesterol content of the blood may be increased or diminished by food has been clearly demonstrated by Georgine Luden in experiments on herself. She enumerates, as being likely to increase the blood cholesterol, cream, butter, mushrooms, egg yolks, alligator pears, oatmeal, salmon, black bass, olive oil, cod liver oil and other fats. Studying each report as it was made in the pathologic series, it was difficult to see that this investigation was of any value. But by grouping the cases and by careful follow-up examinations, and then by viewing them at long range, as it were, exceptionally low blood chemistry estimates were obtained in the frank, undoubted cases of eclampsia. On the other hand, some of the patients presenting toxic symptoms, but in whom convulsive seizures did not seem to be in the least imminent, showed, on chemical examination of the blood, a decided nitrogen retention. The analysis of this series of pathologic cases is suggestive enough to advance the following tentative conclusions: Eclampsia probably does not produce any appreciable change in the blood chemistry. If, in a case of toxemia of pregnancy, the blood shows decided nitrogen retention, either in the nonprotein nitrogen or in the uric acid, it is strongly suggestive that nephritis is the predominating factor in toxemia.

—R—

A Roentgenographic Study of the Infant Chest as Seen at Birth

W. W. Watson, Denver, (*Journal A.M.A.*, Oct. 18, 1924), details the results of his study of the so-called "progression of the chest" in the new-born. The new-born child was immediately reontgenographed, and records were kept as to the time interval, as to whether the child was crying or breathing, as to whether or not the cord was severed, and of the condition of the mother and child. Successive reontgenograms were than made thereafter in five minutes, ten minutes, fifteen minutes, twenty-four hours and before leaving the hospital. A few stillborn infants also were reontgenographed.

—R—

Atypical Mumps

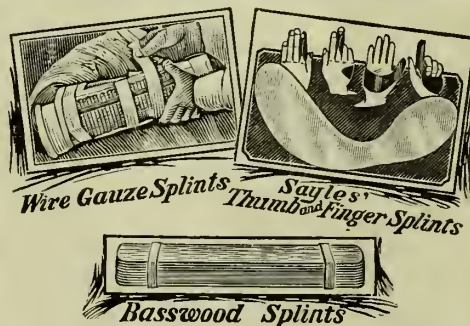
The case reported by William L. Gould, Albany, N. Y. (*Journal A.M.A.*, Sept. 13, 1924), is atypical and unusual in that but

one parotid gland was attacked, with a complicating metastasis to almost the whole of the same side of the body, the opposite side remaining entirely free.

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"Tobacco—Its Use and Abuse"

FRANK L. ABBEY, M.D., Newton

Read at the Annual Meeting of the Kansas Medical Society at Wichita, May 7-8, 1924.

Tobacco was in use among the aborigines of America long before the continent was discovered by Europeans. The Indians used it by smoking, and more particularly as a ceremonial. Its use does not appear to have been so common among them before as it came to be after the coming of the white men. Many more pipes were found in their camping grounds used after this time than before. Even tradition does not give a clue to the origin of its use. Its use was general in South America, and it was extensively cultivated along the Orinoco river. It attracted the attention of the Spaniards under Cortez in Yucatan about 1519, but the first record of its introduction into Europe informs us that it was taken to Lisbon, Portugal, by Hernandez de Toledo at the time when Jean Nicot was French ambassador at that court, 1559. He took some of the plant to Catherine Medicis and from this event the plant was variously named *Nicotiana*—also the origin of the name of its principal alkaloid, nicotine—*Herba Regina* and Ambassador's Herb. Some years later Cardinal Croce, a Roman, home from a stay in Portugal, took some of the leaves with him. It was credited with great virtue as a medicine by the Italians, as the following English version of some Latin verses will show, it being named Santa Croce's herb. ¹

"The herb, which borrows Santa Croce's name.

Sore eyes relieves, and healeth wounds,
the same;

Discusses the king's evil, and removes

Cancers and boils; a remedy it proves

For burns and scalds, repels the nauseous
itch,

And straight recovers from convulsion fits.

It cleanses, dries, binds up and maketh
warm;

The headache, toothache, colic like a charm

It easeth soon; and ancient cough relieves

And to the reins, and milt, and stomach
gives,

Quick riddance from the pain which each
endures,

Next dire wounds of poisoned arrows cures,
All bruises heals, and when the gums are
sore,

It makes them sound and healthy as before.
Sleep it procures, our anxious sorrows lays,
And with new flesh the naked bone arrays.
No herb hath greater power to rectify
All the disorders, in the breast that lie,
Or in the lungs."

It may have been introduced into England about this time, but to Sir Walter Raleigh at a later date is ascribed the credit—or otherwise—of making its use general. Many persons are said to have expended as much as five hundred pounds sterling yearly for it—a great sum for those days. A philosopher of that time, named Burton, gives his opinion as follows: "Tobacco, divine, rare, super-excellent Tobacco," "which goes far beyond all their panaceas, potable gold, and philosophers stones, a sovereign remedy to all diseases. A good vomit, I confess, a vertuous herb, if it be well qualified, opportunely TAKEN, and MEDICINALLY used; but as it is commonly used by most men, who take it as tinkers do ale, it is a plague, a mischief, a violent purger of goods, lands and health; hellish, devilish and damned Tobacco, the ruin and overthrow of body and soul." ²

Its abuse was so great that several European rulers tried to restrain its use by edicts—notably Elizabeth and James the first. The latter described smoking as "loathsome to the eye, hateful to the nose, harmful to the brain, dangerous to the lungs, and the black stinking fumes thereof nearest resembling the horrible Stygian smoke of the pit that is bottomless." Not alone in England, but in Russia and Persia and Switzerland its use was forbidden and punished. Several of the Popes of the sixteenth century ex-communicated any one who took snuff. In Constantinople "every Turk found smoking was conducted in ridicule through the streets with a pipe run through his nose, and seated on an ass with his face toward the tail." ³ It was believed

that its excessive use rendered men impotent—also that in chewing, the loss of so much salivary fluid interfered seriously with digestion and the inhalation of the smoke was injurious to the air passages, also causing unstrung nerves, indisposition to mental or physical exertion, tremors and nausea.

Our own Dr. Ben Franklin, shortly before his death, said that he had never used tobacco because he had never seen any advantage to be gained by its use, and that he had never known a man who used it who advised him to follow his example. ⁴ Ben Johnson declared it to be the most soothing, sovereign, precious weed that dear old mother earth ever tendered for the use of man. Poets from Spencer to Kipling, excepting Shakespeare, have written rhymes praising it. No other bad habit, if it may be so called, so rapidly and thoroughly and lastingly over ran the earth.

Lately, Hudson Maxim the great inventor warns youth against tobacco, claiming that "The wreath of cigarette smoke that curls about the head of the growing lad holds his brain in an iron grip which prevents it from growing and his mind from developing just as surely as the iron shoe does the foot of the Chinese girl. If all boys could be made to know that with every breath of cigarette smoke they inhale imbecility and exhale manhood, that they are tapping their arteries just as surely and letting their life's blood out as truly as though their veins and arteries were severed, and that the cigarette is a maker of invalids, criminals and fools—not men—it ought to deter them some. The yellow finger stain is an emblem of deeper degradation and enslavement than the ball and chain."

⁵ The cultivation of tobacco became so profitable and popular in Virginia that the streets of Jamestown were planted with it and in order that sufficient food stuffs might be raised, the General Assembly passed a law compelling every planter to cultivate at least two acres of corn or forfeit all his tobacco. At one time the colonists sent a plea to the mother country to give the youth of the colony a college "for the sake of their souls," the Attorney General replied, "Damn your souls, plant more tobacco." Taxes, fines, gambling debts, wedding fees, funeral expense and ministers salaries were paid in tobacco. For more than three centuries since the red man made the world acquainted with tobacco, its popularity has increased until for

years past it has been the most widely used of all narcotics or stimulants. Before the World war the product of six factories of Richmond was 50,000,000 cigarettes every working day and the world's crop was valued at more than \$200,000,000.00. Belgium was using over six pounds per person, the United States five and one-half pounds and other countries following closely. During and since the war, its use has increased by leaps and bounds. A conservative estimate of our annual expenditure for tobacco alone, not counting pipes, matches, etc., is \$1,600,000,000. Smoking is also now recognized to be the leading cause of the fire loss. The extent of the newspaper, magazine, and billboard advertising of tobacco is exceeded by but one other product or industry—the automobile. The cigarette is supposed to be an outlaw in Kansas, and Kansas publishers do not admit its advertising to the columns of their papers, but outside periodicals with few exceptions give many pages to exploiting its sale and use. This popularity has been attained not without some opposition. Campaigns of education have attempted to show the waste of land in production of tobacco, injury to health of tobacco workers, destruction of property by fires started by smoking, and the physical and moral impairment of users of tobacco.

Why do people use tobacco? The habit is usually acquired in youth before stability of habits or character is formed. I do not believe that one out of ten users of tobacco can give a reason for its use that would be considered reasonable or sensible. Probably most boys and men begin because other boys and men use it, especially some individual or company with whom the boy or man associates or wishes to associate. The soldiers returning to civil life were worshipped as heroes by the younger brothers and friends, and the use of cigarettes no doubt was greatly increased by imitation. Even the girls and young ladies seemed to accept the smell of tobacco as an attribute of virile masculinity and at least to profess to enjoy the society of the smoking doughboy rather than that of the abstaining civilian. In almost every case, the first use of it is attended by much discomfort, dizziness, nausea, headache, and even vertigo. But the victim persists with a courage worthy of a better cause, and soon is able to tolerate the use and tolerance is followed by appetite. Since I have begun to study tobacco more closely I have

tried to discover wherein the users find the enjoyment. It does not produce to any measurable degree the stimulation or sedation of the nervous system that is produced by morphine, alcohol, or cocaine. Its pleasurable effects cannot be accounted for by the presence of nicotine, for the use of that alkaloid does not produce like results. Some men I have talked with claim that it gives repose and enables them to concentrate their faculties upon the work in hand. Some claim that the local effects of the warm smoke on the mouth, nose and throat are soothing and restful. Some men claim that they do not enjoy smoking unless they can see the smoke.

5. An elaborate series of laboratory experiments was lately performed at the University of Wisconsin, under the direction of Professor M. V. O'Shea. Pipes and matches were placed in trays in sight of the subject. The men selected were eighteen in number, half of them smokers and half non-smokers. A control pipe was constructed similar in every way to the tobacco pipe but contained in its bowl an electric coil by means of which the bowl of the pipe was heated. The subject was blind-folded while smoking. One evening he was given the pipe containing tobacco after it had been lit and started by the professor making the experiment. Another evening he was given the control pipe through which he "smoked" literally hot air but no tobacco. The professor tapped and scraped the pipe, opened the tobacco can, filled the pipe and took a few puffs to start it, then gave the pseudo-pipe to the subject while he smoked the real pipe himself. In nearly every case the subject failed to discover the trick but thought he was smoking a real pipe every time. In this way, any prejudice or suggestion was removed from the mental and physical tests which followed.

Nearly all agreed that a chew or smoke, although satisfactory at the time, is soon followed by an uneasy craving or undefined sensation which is only satisfied by another chew or smoke. Some men are not able to listen to a lecture or finish a small job of work without resort to another dose of the weed.

In the consideration of the effects of tobacco, the following are the most common points of agreement among investigators.

1. The moderate use of tobacco by a healthy adult male is usually attended by no appreciable ill effects.

2. The excessive use of tobacco is harmful to any one. The same might be said of almost anything.

3. The use of tobacco by youths, women and the aged is harmful.

4. The use of tobacco by adults suffering from certain circulatory nervous and respiratory diseases is harmful.

5. The use of tobacco by chewing or by inhaling the smoke is especially harmful.

6. That while it may have some slight medical value in some cases, it may well be supplanted by other remedies.

These statements are the results of investigations made in the army, schools, colleges, and factories. It may be said that the experiments so far have not been perfect in technic, nor free from bias. Much data so far collected has been based upon opinion rather than research. But a few years ago a very systematic attempt to secure accurate knowledge was made at the Y. M. C. A. College at Springfield, Mass., also at the University of California, at Yale and at Amherst, Dr. Bloodgood of Baltimore and Arnold Lorand of Carlsbad, Dr. Edward Spitzka of New York, an army medical officer, from his experience in the army declares that a man in sound health with a good nervous system, and accustomed to smoking, may consume as many as twenty cigars or fifty cigarettes daily without becoming pale, sweaty or nauseated, without palpitation of the heart, or embarrassment of breathing. Such a man—not a youth—may continue moderate smoking safely, if he does not inhale, but a man of unstable nervous tendencies, or with heart disease, hardening of the arteries, diabetes, or other constitutional disease cannot so indulge.

7 (Gris Kahn & Limerick of Cornell.) "Acute tobaccoism arises from the first use of the plant with symptoms of vascular disturbances, muscular relaxation diaphoresis, cephalalgia and vertigo. These symptoms are followed with unparalleled rapidity by a tolerance to larger and frequently repeated doses of tobacco.

To those habituated to the plant, the symptoms are chiefly to the vascular and psychic mechanisms; in moderate but temporary rise in blood pressure and an increase in the power of concentration in consequence of a better adjustment of the ego to its environment. The rise in blood pressure does not exceed in degree or duration that which ordinarily follows a cold bath or sponge; rarely equalling that caused

by dancing. The effect, vascular and psychic, is due to the combined action of nicotine, pyridine, collidine, aldehydes and carbon monoxids. Nicotine plays the most important role in these reactions.

The Sequence of the potency of the different forms of tobacco used runs as follows: The greatest degree is found in chewing, the next in smoking the pipe, smoking cigar, the less degree is found in smoking cigarettes.

The phenomena of tolerance to tobacco imply defensive, adaptability to the effects of the plant—an actual decrease in the protoplasmic sensitiveness to nicotine as is shown by the absence of bad effects in those using tobacco in excess.

No constant relation exists between the amount of pleasure derivable from tobacco and its nicotine content, or to the extent of any consequent physiological effect. Tobacco smokers tend toward the use of the mildest form of tobacco—the cigarette. This voluntary drift toward the least potent is the exact reverse to what is found in drug addicts. Tobacco, mild or strong, aids in the adjustment of the ego and it does this through its action on the psychic and adrenal mechanisms.

Tobacco does not *cause* disease of either mind or body. It has been said that immoderate use of the plant sometimes causes arteriosclerosis, but this has not been proved. The condition "smoker's heart" is often due to endocarditis, associated with gonorrhea, syphilis, rheumatism, tonsillitis, pyorrhea alveolaris, dental abscesses and other causes.

Excessive use of tobacco occasionally affects the vascular system and neuro-vascular coordination, but that does not mean necessarily that the plant is an economic menace. We do not advocate closing of schools because education is acquired at the expense of visual impairment.

Conclusions: Habitually moderate use of tobacco is not harmful to adults. The moderate use of tobacco proved distinctly helpful to certain types of adults. The habitually excessive use of tobacco may prove harmful to certain individuals. But the same holds equally true of all foods. The excessive use of tobacco may prove harmful in certain neurovascular disorders. The habitual use of tobacco by juveniles is harmful."

Experiments upon telegraph operators by the University of California seem to show that there is little difference between

non-smokers and light smokers in general efficiency, however, toward the close of a days work, the heavy smokers were lacking in accuracy and rapidity. Dr. Bloodgood of Baltimore who is making a great fight against cancer, finds from his record of cases, that cancer of the lips, tongue and mouth is many times more common in males than in females, and that 80 per cent of these cancers in males are caused by the use of tobacco and more than 10 per cent by bad teeth, however, he thinks that the mechanical irritation produced by the quid in chewing, and by the cigar and pipe-stem, and by accidental burns in smoking is largely responsible. Dr. Francis Carter Wood of Columbia asserts that tobacco is the most frequent cause of cancer of the mouth. It has been held by insurance companies that smoking or chewing is unfavorable to long life, but I have noticed lately that the inquiry is not so often "Do you use tobacco?" as it is "To what extent do you use tobacco?"

Dr. Holmes of the University of Kentucky says that while it is probably true that cigarette smoking has a detrimental effect upon the immature cells of youth causing boys to be stunted in body and mind, and lacking in moral sense, yet the extent of this damage is not determined, because most young degenerates and defectives do smoke cigarettes and because boys who smoke do not show up as well mentally and physically as those who do not smoke, does not prove that they were made deficient or delinquent by cigarettes. He says they may have been inferior to begin with, and that may be the cause of their learning to smoke rather than an effect of their smoking. Take the statement of the case that suits you best. Boys are likely to adopt the injurious practice of inhaling the smoke. In this way not only is there an irritation of the respiratory tract but also a greater absorption of the poisonous constituents of tobacco, affecting the unstable nervous system and interfering with the normal processes of the body.

Heinz ⁸ of Berlin reporting on the toxicity of tobacco smoke found that eight times more nicotine was absorbed when the smoke was inhaled than when it was not.

I have taken from O'Shea's work, ⁹ previously quoted the following conclusions reached by Superintendents of Schools and Presidents of Colleges.

Superintendent H. D. Hervey of Malden,

Mass., in 1907, reported that "the results of his study seemed to indicate a close connection exists between low mentality, physical weakness, moral delinquency and cigarette smoking."

In the Literary Digest for August 8th, 1914, the statement is made that "in fifty years at Harvard University, not one tobacco user has stood at the head of his class, although five out of six Harvard students use Tobacco."

It is also found that students who have high grades during the first years of high school or college work become deficient in their work after beginning to use tobacco. O'Shea concludes that "tobacco is playing a tragic role directly or indirectly in the college or high school today." This was confirmed by the testimony of 206 school principals some of whom were users of tobacco.

J. P. Baumberger¹⁰ found that in addition to nicotine, tobacco smoke contains carbon monoxide, the poisonous agent of illuminating gas and the exhaust gas of automobiles. It was estimated that if a person were to smoke steadily for an hour and inhale the smoke five times a minute, he might cause 22% saturation of the hemoglobin of the blood. He might also absorb 36 mgs. of nicotine which would produce marked effects upon the habitue, although the lethal dose is given as 500 mgs. taken at one time.

Dr. W. A. McKeever of our own state asserts that the cigarette is the chief enemy to the health, and the moral, and religious development of youth. Dr. Edgar Byfield of Rush says that in taking personal histories, the use of tobacco should be as carefully inquired about, as that of alcohol, especially with reference to angina pectoris, insomnia, disorders of the optic nerve and cardiac disease. Dr. Lorand of Carlsbad supports the contention that women are particularly susceptible to the evil effects of tobacco on account of their more delicate nervous organization, and that confirmed female devotees of the weed are usually sterile, especially if they begin the practice early in life. He names tobacco as one of "Ten Greatest Life Shortening Habits."

Dr. Spitzka above quoted, tells of a female artist of extremely neurotic temperament who was in a psychiatric clinic in New York. She had rigged up an apparatus by which she was able to inhale the smoke from as many as two hundred cigarettes in three minutes, however, she did not keep it up very long. Dr. Lorand also is of the opinion that the gift or sale of tobacco to

women and children should be prohibited. It is well known that the aged are much like children in the susceptibility to disease and drugs. Even though tobacco may seem to soothe them, and comfort them in their declining years, it really in many cases, hastens the final end. It is also in advancing years that arterio-sclerosis and heart diseases manifest themselves. It seems to be well established that the rate of the heart is increased by the use of tobacco. The rhythm is also disturbed. All of you have observed cases of "tobacco heart." It may be that the number of these cases has been placed too high. The test of the diagnosis is in the withdrawal of the tobacco. In the Springfield tests the increase in pulse rate after using tobacco was the most constant result. Increase in blood pressure was also fairly constant though not so nearly so.

¹¹ There is but one cause of heart failure, and that is myocarditis, but there are a number of etiological factors. The author's results are from researches carried on during the past three years. The records were taken on 132 young men, between 20 and 25 years old, and include blood pressure, pulse rate, and length of systole. The young men were divided into four classes; first, non-smokers, second, light smokers, third, moderate smokers, fourth, heavy smokers.

The blood pressure average the same in all classes. The pulse rate increased from 82 in non-smokers, to 83 in light smokers, 86 for moderate smokers and 90 for heavy smokers. The length of systole was slightly shorter among the smokers than among the non-smokers. The increased pulse rate indicates a slight irritation of the myocardium, or the nervous mechanism, and the picture is one of slight myocarditis. These figures deal only with young men; if older men were studied, greater difference might be expected, because of a longer toxic use of the drugs.

Tobacco smoke has a toxic effect upon voluntary muscles, as author shows in some very striking results obtained in the laboratory on the muscles from a frog. Author believes that tobacco smoke may be considered an etiological factor in myocarditis.

As a factor in production of arterio-sclerosis Dr. Lorand places tobacco second to syphilis only, particularly in the arteries of the brain and the coronary arteries, producing apoplexy and angina pectoris. During the period in which the use of tobacco has so rapidly increased, especially during the last decade, heart disease, apoplexy and

Bright's disease have also largely increased. Dr. Holmes, before quoted, who is not a partisan against tobacco, asks why these diseases are much more prevalent among American men than women, and among Americans than any other nationality. He asks, is it a mere co-incidence that the diseases and the use of tobacco go along together. The English use much less tobacco than the Americans and are less affected by these so-called diseases of degeneration.

Amblyopia, atrophy of the optic nerve and degenerative changes in the retina are known to follow excessive tobacco using and the best treatment for these conditions has been the cessation of the habit.

Constant irritation of the respiratory passages by hot smoke helps to lay the foundation for serious chronic diseases of those parts by destroying resistance and providing ports for infection. Much has been said by the anti-tobacco crusaders about nicotine but it is not the only source of harm to the user. In fact, the amount of nicotine absorbed by some smokers—especially if they do not inhale—may be trifling. Yet, we must keep it in mind that we are dealing with a narcotic and that all narcotics are dangerous. Taking all the evidence together, I think we must admit that any possible good or pleasure that may be derived from its use, are far out weighed by its evil effects on mind and body, to say nothing of the great economic waste which I have not time to consider.

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Radium Treatment of Cancer of the Face

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Before taking up the treatment of Cancer of the Face it will be interesting to give a hasty review of the historical aspects of our knowledge of Radium and its physics.

The x-ray was discovered by Rontgen in 1895. This created quite an interest in the various forms of radiation. Berquerel, a French scientist, discovered the radio activity of Uranium in 1896. This gave us our first knowledge of radio activities of minerals. The method used in studying radio activities of uranium was the photographic method, the same as Rontgen used in studying the x-ray.

Closely following this, Madam Currie began studying radio activity of uranium by the ionization method. She discovered that

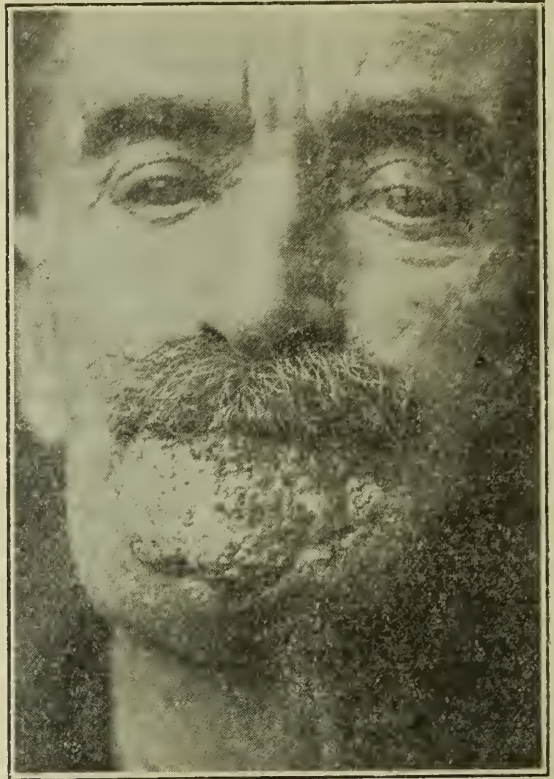


Figure 1. Cancer of the lip. Patient was treated for three months by paste at another clinic without any benefit, the entire lower lip being destroyed except a very small portion at each angle.

certain samples of uranium ore were much more radio active than others and that freshly prepared uranium salts have less activity than old uranium ores. This led her to the conclusion that the radio activities of uranium was not due to uranium itself but due to some other substance associated with uranium. Working on this theory and assisted by her husband, P. Currie, and a chemist, Bemont, Polonium was isolated in 1898, and Radium in 1900. The radiations from radium were considered to be a definite entity but in the same year an English physicist named Rutherford was able to demonstrate that the radiations from radium were made up of three definite types of rays, which he named, alpha, beta, and gamma.

He found that a thin screen, say a thickness of writing paper would cut off the alpha ray, while additional layers made very little difference in the further radiation. The next set of rays, the beta rays,

were easily removed by thin sheets of metal, while additional sheets made little difference on the remaining radiation, which he called the gamma rays.

The biological action of the radiations of radium were unknown until the spring of 1901 when Berquerel accidentally received a radium burn while carrying a bottle of impure radium salts in his pocket. This burn was similar in all respects to the well-known x-ray burn.

Following this in the same year, Danclos in France and Frances H. Wilson in Boston began using radium therapeutically. From that time on the use of radium has gradually extended until the present day.

PHYSICS AND CHEMISTRY OF RADIUM

Radium is a decomposition product of uranium and it itself is constantly decomposing giving radium emanation, and a series of other decay products. During these stages of decay the radium gives off the several rays, which we have previously mentioned.

The alpha rays are corpuscular in character and contain a positive charge of electricity. The beta rays are also corpuscular in character and contain a negative charge

of electricity, while the gamma rays are an electro-magnetic disturbance similar to

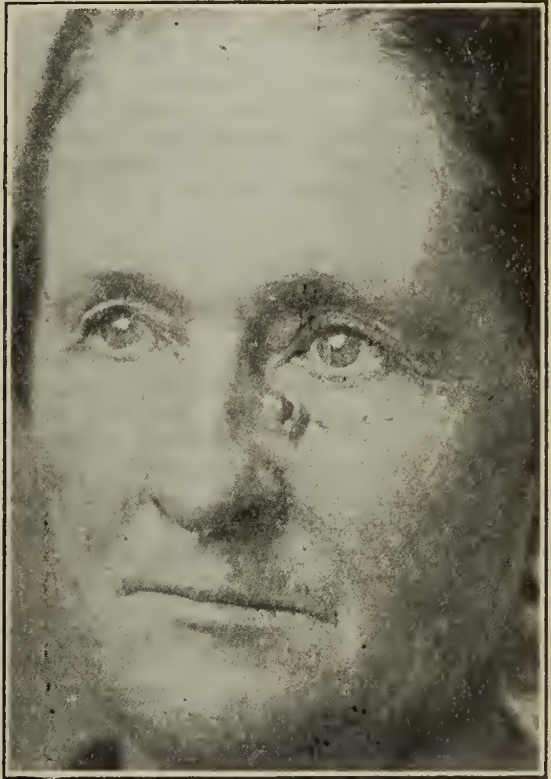


Figure 5. Cancer of the Inner Canthus of the Eye on admission January 1, 1923.

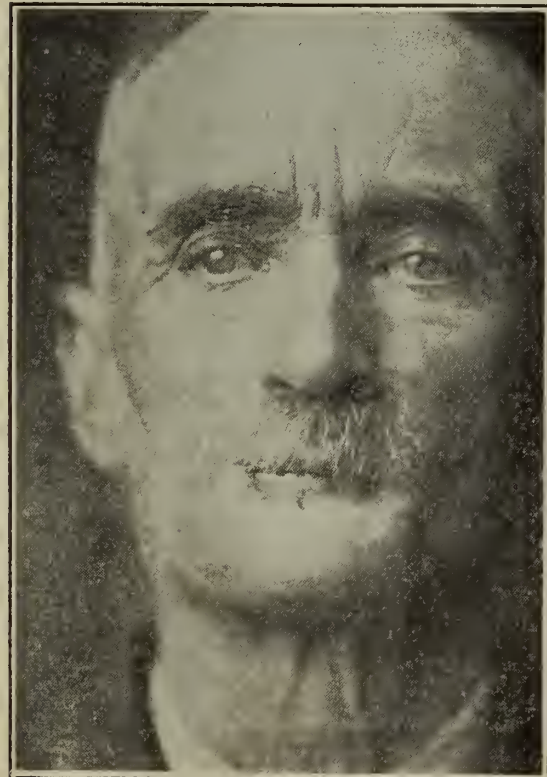


Figure 2. Same as Fig. 1, four months after admission.

light. These rays differ greatly in penetrating power. The alpha ray has a penetrating power of 1, the beta of 100, and the gamma of 10,000. The ionizing power is just the reverse, the alpha ionizing power being 10,000, the beta 100, and the gamma 1.

The alpha rays are of no use from a therapeutic point of view. The beta rays are useful in treating certain superficial skin lesions, while the gamma rays are the ones that we depend on in the treatment of cancer.

The gamma rays are similar to light except in wave length. It might be interesting to compare the wave length with other forms of radiant energy.

Electric Waves, 10 Kilometer to 1 millimeter.

Heat Waves, 0.3 millimeters to 0.00077 millimeters.

Visible Light Wave Length, 7,700-4,000 Angstrom Units.

Ultra Violet Light Length, 4,000-200 Angstrom Units.

X-Ray Length, 725-0.06 Angstrom Units.
Gamma Ray Length, 0.1-0.01 Angstrom Units.

The shortness of the wave length of the gamma ray is what gives it its great penetration and therapeutic power. It will penetrate through the bone so readily that it will not cast a shadow on the fluoroscopic screen as the x-ray. It's rays are harder (in terms of the radiologist) than the hardest x-ray.

The x-ray can approach in shortness of wave length the gamma ray only with the high powered, modern, deep-therapy machines.

Chemically radium is an isotope with barium. That is, it has the identical chemical reactions, and radium cannot be separated from barium by chemical means, although it is possible to separate them by physical means as there is a slight difference in the solubility of the two substances, so in the preparation of radium the two are separated by fractional crystallization.

Radium rays have certain chemical effects like the decomposition of iodoform, producing hydrogen peroxide in the presence of water. It decomposes many dyes the same as sunlight. The color-fastness of a dye can be tested by radiation to radium and in a short time get the same effect that several months exposure to sunlight would give.

Among the most interesting physical effects of radium is the efflorescence of zinc sulphide and platinum tungstate, its ionizing power in discharging an electroscope and its ability to color glass and certain crystals. It gives glass the same turquoise color that x-ray gives an old tube. It also colors diamonds and some semi-precious stones.

Biological effects of radium are stimulating in very small doses and in large doses destructive. The various tissues of the body vary in sensitiveness to radium, the cells that are rapidly growing and dividing being much more radio-sensitive, as a rule, than the more fixed cells. For this reason cancer tissue is more radio-sensitive than normal tissue. As a rule the faster growing a cancer, the more radio-sensitive it is.

TREATMENT

The treatment of carcinoma of the face with radium is simplicity itself. All it consists of is placing the radium over the lesion. The radium should be screened with some metal to cut off the beta rays and the softer gamma rays. I usually use 2 mm. of brass or lead and hold the radium about one cm.

from the lesion with a suitable block of light wood. Most of the cases which I shall report have received from 1,000 to 2,400 milligram hours of radium given with this technique. Under this treatment the cancer is destroyed and the lesion heals, usually, with hardly a perceptible scar. The sites where radium is of the greatest advantage is around the eyes and nose, as in these locations it is impossible to remove a cancer by surgical operation without leaving a deforming scar unless these are taken care of by extensive and difficult plastic operations.

CASE REPORTS

I have to report 25 cases of cancer of the face that have been treated from 33 months to 8 months. These cases are divided as follows:

Cancer of the lip 10 cases, near inner canthus of the eye, 3 cases, nose 4 cases, cheek 7 cases, ear 1 case.

The lip cases can be divided as follows: Primary cancer of the lip without involvement of the glands 4; these cases have been treated from 33 months to 13 months and are all apparently well at the present time. One case of primary carcinoma of the lip with sub-maxillary gland involved, the lip is entirely healed but there is a small induration at the site of the gland; this gland was treated by radium externally and with needles implanted in the gland, a small nodule is palpable at site of the gland; we hope that the nodule is nothing but scar tissue but fear that cancer still remains. One case of postoperative local recurrence with apparent cure, although the time is too short to claim a permanent cure, as patient was treated 14 months ago. Three cases of post-operative recurrence in the lip and gland, two of these are dead. The third post-operative had a recurrence on the lip with a small sub-mental gland and he is apparently well; one patient had a local recurrence following removal of the cancer by paste 6 years ago. He is apparently well.

Three cases near inner canthus of the eye: These are from 15 months to 10 months old. All were treated with about 1,000 mg. hours of radium screened with one mg. of brass. They all healed promptly and are apparently well at the present time.

Cancer of the nose, four cases: These were treated similar to the cancer of the inner canthus of the eye and all healed very promptly with no recurrence. The time since treatment began varies from 32 months to 10 months.

Cancer of the cheek, seven cases: These when small healed very rapidly under radium. None had metastasis. Only two of these are worthy of remarks. One an old gentleman with his lesion practically healed and he had it treated at another place with paste. He developed a marked ectropion; whereas he could have had an excellent result had he stayed with this radium. The other one was an old bachelor who came to

sent home and died before time for his next treatment.

CONCLUSION

In treating cancer with radium, the same rule will hold as when treating cancer by other means. To get the best result the cancer must be attacked early and before the glands are involved. If this is not done we must expect a higher mortality. My brief experience has led me to believe that any superficial cancer can be destroyed by radium if taken early but if the glands are involved the chances for recovery are materially diminished. A recent report from Mayo's Clinic states that in cancer of the lip with involvement of the glands only eight per cent ultimately recover, so it behooves us all to diagnose these lesions early and institute treatment at a time when our results can be what they should be.

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Ectopic Pregnancy

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Read before the Central Kansas Medical Society, at Ellis, Dec. 11, 1924.

Ectopic pregnancy may be defined as the condition which results from arrest and development of an impregnated ovum at some location outside of the uterus.

Until 1883 this condition was regarded as rare, but since that date when Lawson Tait first operated for ruptured tubal pregnancy it has been found to be rather frequent and constitutes cause for operation in about four per cent of abdominal gynecological operations.

From the best statistics available it appears that ectopic pregnancy occurs in the ratio of one to 250 normal pregnancies. Age seems to be a factor: 65 per cent of 965 cases occurred between the ages of 24 and 34 years. It is likely that the age incidence may be accounted for by the fact that during this period sexual life is most active and normal pregnancies more frequent.

Ectopic pregnancy may be bilateral and occur, the second, one or more weeks after the beginning of pregnancy in the first tube. This condition is rare. I myself have not seen it.

It is conceded that ectopic pregnancy is the result of but one cause, obstruction to the lumen of the tube sufficient to delay progress of the impregnated ovum. This obstruction is usually the result of previous inflammation of the tube resulting in stricture, kinking or distortion of it. Diverticula in a tube not previously the seat of inflammation is a possible cause.

Traction from without by peritoneal ad-

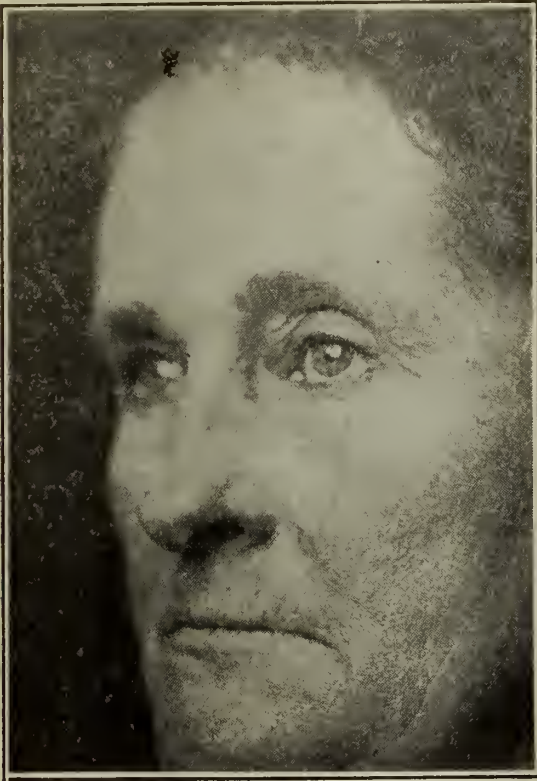


Figure 6. Same as Figure 5, September 12, 1923.

us on May 2, 1923, with a large carcinoma involving the cheek and ear. It had a raised edge about one-half inch above the surface of his face and a crater about one inch deep. The long diameter of his lesion was 6 cm, and 4 cm. wide. The excessive growth was first destroyed with soldering irons and radium applied in large quantities, both filtered and with bare needles applied in direct contact with the lesion. This lesion was nearly healed last August when the patient neglected his treatments for five months, getting a recurrence as his reward.

Cancer of the ear, one case This patient came to me October, 1921, with his entire ear destroyed except the lower lobe and marked involvement of the sub-maxillary glands. He was given one treatment and

hesions or pressure from tumors have been known to be causative factors. For all practical purposes it may be assumed that previous tubal inflammation is the cause.

Tubal pregnancy is most apt to occur in women who are the least prolific, who have intervals of several years between pregnancies and who perhaps have had previous abortions, all of which suggest the probability of obstruction in the tubes which not only is conducive to ectopic pregnancies, but renders normal pregnancy less frequent.

According to the site of development in the tube, tubal pregnancy may be classified as ampullar, isthmic and interstitial.

The ampullar variety is most frequent. In this type the impregnated ovum develops in the outer third of the tube and symptoms may occur earlier on account of the tendency to early extrusion through the fimbriated extremity.

In the isthmic the ovum is arrested in any portion of the tube between the ampulla and the horn of the uterus.

The interstitial type which is rare, develops in the uterine end of the tube, at which point rupture is accompanied by most severe bleeding. It is this variety therefore in which fatal hemorrhage may occur early.

Pregnancy in the remaining tube occurs not infrequently after operation sometime prior for ruptured tubal pregnancy. I have met with this condition three times. According to Smith, repeated ectopic pregnancy has occurred 113 times in three thousand and ectopics.

COURSE AND TERMINATION

Ectopic pregnancy may terminate in tubal abortion, death of the foetus before rupture of the tube. Rupture of the tube with extrusion of the product of conception into the abdominal cavity where the foetus may die, hemorrhage cease and the entire debris be absorbed or encysted or the foetus continue to develop to full term as an abdominal pregnancy and spurious labor occur with death of the foetus if surgical treatment is not instituted.

SYMPTOMS AND DIAGNOSIS

There is perhaps no other acute condition with which we meet in the abdomen in which the symptoms are so classical that the diagnosis can usually be accurately made from the story of the illness.

Given a married woman who has perhaps gone several years without pregnancy, who has missed one or perhaps two menstrual periods, when she is seized with pain in the lower abdomen accompanied by mod-

erate nausea or vomiting followed soon by faintness, rapid pulse and other evidences of shock and a little later by bleeding from the uterus, we have a picture which should always lead one to suspect the presence of ectopic pregnancy with rupture of the tube.

Pain at the time of rupture is a constant symptom and while it may not always be severe, it is frequently intolerable and usually requires morphine for relief. Exacerbations of pain occur on movement of the body, due for the most part to irritation of the peritoneum by invasion by blood.

Unless bleeding is severe there may be little increase in pulse rate and a rise of temperature to more than 101° is unusual. As might be expected the temperature is subnormal for a variable period after hemorrhage and rises only after recovery from the shock of bleeding.

The most frequent mistake in diagnosis is made by assuming that one has to deal with uterine pregnancy and threatened abortion, a conclusion arrived at because of the frequent presence of bleeding from the uterus. However, experience and care should raise a doubt in the mind of the physician. The pain in ectopic is more severe, continuous and referred high in the abdomen as compared with the paroxysmal pain of threatened abortion, which pain is confined to the lower abdomen and back. The pain of ectopic is nearly always accompanied by nausea and frequently by vomiting. Abdominal rigidity is the rule in ectopic. The temperature and leukocyte count are higher. The uterus is only slightly enlarged, usually pushed to the opposite side and one can outline a mass in the pelvis corresponding to the site of pain.

In cases where bleeding from the uterus does not occur before rupture and only late after rupture of the tube, it becomes necessary to differentiate this from one of many possible acute abdominal inflammations, namely, pyosalpinx with leakage from the tube resulting in pelvic peritonitis or pelvic abscess, ovarian abscess, cysts or tumors of the ovary with twisting of the ovarian pedicle. Frequently the pain from this condition is so severe as to cause shock difficult to differentiate from ruptured ectopic. Acute appendicitis, especially when, as happens frequently in women with thin, protic abdomens, the appendix may be in close proximity to the right tube and its inflammatory mass felt there. Perforated ulcer of the stomach or duodenum, colic ac-

companying stone in the kidney or ureter, or the colic which sometimes accompanies pyelitis.

However in each of the above inflammatory conditions there will be one or more familiar signs peculiar to the individual disease which should aid in its differentiation. For example, character and distribution of pain peculiar to kidney lesions. The history of stomach symptoms bearing on ulcer or the blood picture. For example marked increase of leukocytes and normal hemoglobin is the rule in acute perforations or inflammations of other abdominal viscera, while very slight leukocytosis and diminished hemoglobin is the rule in ruptured tubal pregnancy.

No doubt, as stated above, many ruptured ectopic pregnancies have been overlooked in which resolution took place after a more or less stormy period without any treatment. The hemorrhage ceases, the foetus dies and if the pregnancy is early the entire mass becomes walled off, blood clots absorbed and a symptom free condition obtains, or the tube may rupture and the foetus live for many weeks, then to die, become encysted and the patient go on with a fair degree of comfort.

I recall a case which was operated by Dr. J. W. Perkins some 15 years ago in which he had made a diagnosis of abdominal pregnancy some years prior.

This patient had a large mass in one side of the pelvis and on several occasions had evacuated pieces of small bones via the urinary bladder and urethra. At operation the mass was found to be made up of the mummified remains of a foetus and a communication with the bladder was established.

In the light of our present knowledge, early operation is the only safe means of dealing with this condition. This consists of opening the abdomen, removing the affected tube, securing hemostasis, removing blood clots and other debris and instituting drainage or not as the particular case seems to demand. I seldom drain and I make little effort to remove free blood. I think trauma resulting from its removal is more productive of adhesions than is the presence of blood.

Give nothing by mouth. Physics or enemata are positively contra-indicated. Stimulants other than morphine should not be given in the presence of hemorrhages. During operation normal saline solution may, if the condition demands it, be given by hypodermoclysis or intravenously.

The time element is important. It may be borne in mind that we have to deal with active intra-abdominal hemorrhage and that control of this hemorrhage is imperative. That anything tending to increase bleeding must be prevented. Absolute quiet of the patient and of her abdominal viscera must be maintained. Morphine is indicated not only for relief of pain, but for its action in lessening blood pressure. Its stimulating effect on the heart and its ability to quiet peristaltic action of intestines. A sandbag placed over the lower abdomen, because of pressure resulting, tends to diminish bleeding. Elevation of the foot of the bed relieves cerebral anemia.

I cannot resist quoting verbatim from a recent article by John B. Deaver, entitled "The Acute Abdomen." This article appears in the December number of Surgery, Gynecology and Obstetrics. He says as follows: "Internal hemorrhage of the non-traumatic acute abdomen often results from a ruptured tubal pregnancy. It is well known that rupture of the Fallopian tube at the uterine junction is very serious; operation cannot be done too early. A famous Philadelphia pathologist, at one time coroners physician, was in the habit of telling his students that the cases with rupture at this point were the ones on which he operated, while rupture distal to this point, including tubal abortion were the ones operated on by the surgeons. Where there are signs of ruptured tubal pregnancy I always operate at once and rarely have to give even in bad cases an infusion of salt solution. One of the surgical principles in the presence of a bleeding vessel is to tie the vessel. I cannot understand the practice of waiting for the patient to react when she is bleeding. This is not the practice of the general surgeon but of the specialist and I have no hesitancy in saying that the practice courts disaster."

Where the patient is far removed from the hospital she should be operated upon at home, rather than subject her to the trauma of riding a long distance in ambulance or train. Sterile outfits including apparatus for giving salt solution intravenously or subcutaneously, can be obtained by the surgeon from most any hospital on short notice and with these operation can be safely done in most any home.

I think it a mistake however, to operate immediately on a patient in profound shock from hemorrhage. I have several times been confronted with this condition, but

I have never seen a patient die from hemorrhage. I think it seldom happens. It is my observation that in a very short time, a few hours, recovery from shock takes place and the blood pressure improves. It is in this interval that operation should be done. I realize the cases of interstitial type may continue to bleed and perhaps terminate fatally.

A complete review of the statistics in Germany made by Hartog showed that five per cent of all ectopic pregnancies die from hemorrhage at the time of rupture, while the operative mortality in 1176 cases in 25 clinics was eight per cent.

Robb calls attention to the fact of how rarely we see an actual bleeding vessel at the time of operation. He says that in almost every instance, by the time the abdomen is opened active bleeding has ceased and that which may be encountered is due to the operators manipulations in removing clots, etc.

I wish to report two cases which represent fairly well the conditions one is likely to meet in Ectopic Pregnancy.

CASE I

Mrs. C. H. R. Age 23. Married. Housewife. Entered St. Joseph's hospital February 17th, 1923 with the following history: Menstruation always irregular. Not painful. Married five years. One pregnancy three years ago with miscarriage at two and one-half months. Last menstruation December 12, 1922, normal. Failed to menstruate January 10th as expected. On February 9th began flowing profusely. Continued freely until February 17th. Early in the morning of February 17th on going to the bath room was seized with severe pain in the lower abdomen and fell unconscious on the floor. Carried back to bed she continued faint and on account of severe pain called a physician who gave morphine and sent her to hospital for observation. A few hours after entering hospital condition improved and she was soon thought to be out of danger. On the evening of February 19th while being given an enema, was again seized with severe abdominal pain and profound shock again occurred. Patient became pulseless, with extreme pallor, air hunger, and thirst, without loss of consciousness. I saw her soon after this attack and on vaginal examination I could outline a mass size of an orange in the left side of pelvis. Tenderness over all the lower abdomen and rigidity of abdominal muscles. A diagnosis of ruptured tubal pregnancy was made, treatment of

shock instituted and operation advised. Next morning, February 20th, pulse was 120, temperature 100, leukocytes 12,000 and hemoglobin 40 per cent.

Operation: Median supra-pubic incision. On opening peritoneum a large amount of free blood and clots filling pelvis was seen. Left tube together with mass of clots was delivered. Tube clamped, removed and pedicle secured by continuous suture of No. 1 chromic catgut. Omentum brought down behind uterus and in contact with stump of the tube. No effort made to remove all of the free blood. Small cigarette drain to bottom of pelvis and wound closed in layers.

During operation was given 1000 c c saline solution by hypodermoclysis. Left table with pulse 140. Time of operation 40 minutes.

Convalescence normal. Left hospital March 11th, 1923, well.

CASE II

Mrs. O. A. Age 31. Married. Housewife. Entered St. Mary's hospital August 1st, 1924, with the following history: Has three children living and well. Youngest 16 months. Pregnancies and labors have been normal. She has had no miscarriage and no history of pelvic infection. She is still nursing her 16 months old baby and since its birth had not menstruated until she began to bleed, moderately, from the uterus six weeks ago. Moderate bleeding continued for three weeks or until three weeks ago, without pain. Three weeks ago when stooping to pick up her baby she was seized with severe pain in the left lower abdomen, became faint and was compelled to go to bed on account of weakness. Pain continued severe for 12 hours, then subsided somewhat, but on several occasions since, when attempting to be about the room, pain in the abdomen and feeling of faintness forced her back to bed. Since the onset of pain bleeding from the uterus has been more free.

On examination found a small undernourished woman. Her skin and sclera very pale. Leukocytes 13,000. Hemoglobin 55. Urine normal. Moderate tenderness all over abdomen with marked tenderness in the lower left quadrant. On vaginal examination find vagina full of clotted blood and blood escaping freely from the os uteri. The uterus is soft, moderately enlarged and displaced well to the right. There is a boggy, semi-fluctuating tender mass size of an orange felt behind and to left of uterus.

Opening the abdomen I find a quantity of blood throughout the entire cavity, with

numerous large clots filling the true pelvis. The left tube is swollen and together with organized clot around it is size of orange. On clearing away the clot a mass size of a walnut is being extruded from the fimbriated extremity of the tube. The right tube and ovary appear normal. The left tube is clamped and removed. The remaining stump is secured by continuous catgut suture. Wound closed. Returned to ward in good condition.

Improved rapidly. No break in convalescence. Left the hospital symptomatically well.

—R—
Medical Fingerprints

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Among the favorite volumes which span my favorite bookshelf, there is one more shabby than them all. Frequent re-reading has loosened the binding, ravelled the covers, and dog-eared the pages. Many times has this volume been read. In the earlier years it was for the excitement of the story; later for the training derived from the deductions therein; nowadays for the contemplation over the wonderful philosophy, and acuteness of perception of the traits and foibles of humanity. Little did Conan Doyle think, when he placed Sherlock Holmes in Baker street and endowed him with acute powers of perception and deduction, that he thereby symbolized in him an undying eulogy to the medical profession.

The long, lean Sherlock Holmes is the greatest conception of a detective ever fashioned by the human mind. The writer deems himself capable of worthy judgment in this matter, as he has read voluminously from practically every writer of detective and mystery stories since the marvelously analytical genius of Poe gave us Dupin. His shelves are cluttered with multitudinous volumes of the wierd, the gruesome, the gory, the ludicrously pitiable attempts of the finite mind to surpass itself in making the possible seem impossible and the impossible turn possible. But the creation whose master mind solved the "Sign of the Four" stands above them all—the rest but mill and moil about his ankles. Others have aped his gauntness, his occasional acrimony, his greatness of heart hidden under a veil of humerous cynicism; often they have enlarged upon them unto the ridiculous—but they have not even approached

him in that grandeur of truth to life. Why?

Because Sherlock Holmes is built of Human Clay. He is a man, a human being first. In him the detective is engrafted upon a human mind and body; not, as in the others, a mind plastered over an abstract detective idea, and then a body tucked around the whole. Throughout, there is a balance of the man, the body, and the analytical mind. Our beloved Sherlock Holmes is elated over his successes, but not repulsively so; he is nettled at his mistakes, but not ridiculously peevish—the next morning finds him able to philosophize over his bobble. Excitement and concentration make him snappy and irritable—but not to the point of disgusting ludicrousness. Throughout his episodes a human heart warms a natural brain; a palpable pulse beats in his sinewy wrist; a human arm shrinks from the thrust of the hypodermic needle as it administers its numbing charge of cocaine.

Only a physician could have written the Adventures of Sherlock Holmes as they have been written. Not a specialist in any one branch of medicine or surgery, but a general practitioner in a small community, who ushered in the first, lusty wail of life—who as well dropped the lids over the tired eyes which had watched this stage upon which the often sordid tragedy of life was played. None other but he who saw that the nature of mankind is but made up of the petty foibles and gropings after the sublime—that sanity and madness and tragedy and burlesque are often partitioned by a hair—who gazed upon the naked soul, shorn of its gaudy trappings of illusion and subterfuge as it lay upon the rack of suffering, sordid in its retributions or raised to the sublime heights of sacrifice—none but he could have portrayed a human nature fighting against the many shortcomings of human nature—our great, lovable Sherlock Holmes.

In this detective, Dr. Doyle has personified the greatest asset of the physician—the trait upon which all the practice of medicine is built—the deductive and inductive ability of the physician. He has, as well, personified other traits of the good family physician—keen perception of the little shams of his clients; his kindly reception of their shallow excuses which seem so strong to them but so transparent to him; the kindly responsibility which he took in them unperceived—verily Conan Doyle drew upon the traits of his Great

Brotherhood and wrote them into and about the creature of his fancy.

For, after all is said and done, the practise of medicine is but a great adventure in detection. Shorn of whatever you will—office, equipment, mannerism and other isms—the physician is but a detective following hot upon the trail of the many transgressors against health. Medical diagnosis is but a synonym for medical detection, which in turn synonymises with medical deduction. The germ, the disease, the morbid condition, are the criminals; the physician is the bulwark of society before the efforts of these criminals, many (perhaps most) of which are far older than mankind. Pains-takingly, slowly, through the ages, the Scotland Yard of Medicine has been gathering evidence against these criminals; has been meting out punishment when apprehended. Warily, and often wearily, have the thumbprints of the transgressors been gathered and classified. And when a crime against health has been committed, the combined efforts of the ages are placed in the physician's hands to aid him in the merciless hunt against the merciless enemies of mankind. This hunt is called "Diagnosis."

Without exception, every case which comes to the physician for diagnosis is a study in detection—deduction or induction. Ultimate success consists in finding the identity of the criminal—the cause in the case, or the ringleader and his followers. It is generally conceded that the treatment of by far the most conditions is a less difficult task than their diagnosis—the finding of the cause. This is true (or should be especially so) in surgery. It is aptly said that "Treatment but plods wearily upon the heels of Diagnosis." If a condition is properly classified and its cause accurately determined, the path of treatment shows little deviation; it is not nearly so intricate and winding as the one of diagnosis. It is true that many a diagnosis is made too late for full, or sometimes partial recovery, but even in such a case the path of treatment is direct—one knows what to do, even though it will not avail. It should be recalled that very few conditions or diseases, if discovered in time, are not amenable to treatment.

Any method of detection depends on *evidence*. There are two kinds of evidence, direct and indirect. The former needs no corroboration—it is direct, unassailable proof that points to certain definite factors

in the crime under consideration, and is considered infallible by investigators. But even direct evidence is not absolutely infallible, unless all possibilities of error or tampering are eliminated. In the case of the eye-witness, veracity must be established; the person apprehended must be proven the real culprit. The self-confessed criminal may be the victim of insane delusion. Even the fingerprint, which is considered the most direct and unassailable evidence, can be perfectly forged, if time enough is allowed for the purpose of forging. However, these objections are not impossible to surmount, generally. Indirect evidence offers the greatest obstacles, and brings into play the keenest powers of detection.

As the detection of social crime is dependent upon *evidence*, from which deductive and inductive processes start, so is the detection of medical crime—the diagnosis of sickness—dependent upon evidence—symptoms, signs and findings. There is direct evidence, the so-called pathognomonic signs, symptoms and findings. Laboratory findings may be styled as *medical thumbprints*. But even these medical fingerprints are not infallible—not as infallible as first suspected—and they may simulate, or be simulated by other things.

There are many kinds of, and methods of applying indirect evidence in the practise of medicine. A few, which have bearing upon this discussion, are here mentioned: the presence of the suspect in the vicinity of the crime; the conformation of the crime (or disease) to a method which is peculiar to some criminal (or pathological agent); circumstantial—the grouping of circumstances intimate with the crime about some individual—and finally, to the word of others. As the detective's experience grows, it becomes more and more evident to him that, the greater the number of trains of indirect reasoning which arrive at the same goal, the greater the assurance of the probability of the correctness of the original premises.

Deductive reasoning depends upon the elimination of all matters but those directly concerned with the affair at hand. Furthermore, it depends upon ascribing to those direct matters their correct places and sequence. In medical diagnosis, the process is begun by eliminating everything which has no bearing upon the case at hand. The further this procedure is carried

out by the diagnostician, the simpler becomes the ultimate diagnosis.

Success in deductive reasoning depends, first, upon previous correct reasoning and experience. Deduction is the application of a general law to an individual; the general law must first be built up by the observation of a large number of individual cases—or induction. Hence, in Medicine, research is **induction**; medical diagnosis is **deduction**. Not only upon the gathering of essential facts medical (evidence) does correct deduction depend, but also upon the correct assembling of these gathered facts. Organized medicine is a vast intelligence bureau where the data of health-crime are being assembled and pigeon-holed as accurately as possible for future reference.

Failures in diagnosis in the past have been due primarily to the insufficiency of the data collected—pathological, bacteriological, chemical, physical, physiological, etc.—or to the improper dovetailing of this data after collection. At the dawn of recorded civilization, the mental capacity and reasoning powers of mankind, consequently the physician, were fully as keen as they are today. In those sciences wherein sufficient data had been collected and classified by the ancients, such a stage of perfection had been reached that very little has been added to those sciences since civilization dawned. The Theorem of Euclid has stood unassailable and unchanged through the ages; the sciences of algebra, arithmetic, and trigonometry have been, perhaps enlarged, but not corrected. But while the aforementioned sciences were being perfected, scientific and medical data were meagre—faulty premises were arbitrarily chosen; too much dependence was placed upon supernatural and astrological influence. Deductions from incorrect premises gave erroneous conclusions. But the reasoning processes in themselves were masterful; the philosophies of Plato, the conclusions of Archimedes, the writings of the Antonines, and the observations of Hippocrates are classics today. When the scantiness of facts medical and scientific with which Hippocrates was acquainted is considered, one is astounded at the acuteness of the inductive powers of that master mind.

Besides the lack of data in those olden days, the organization of that at hand was wanting—observations were passed along by word of mouth, a method of dissemination which caused their distortion as they

were bandied about. Practitioners were not trained in the principles of sustained observation and in the logical sequence of deductive and inductive processes. Those few who stand out as master figures of the ancient days are those who naturally were endowed with those attributes, or who mastered them more fully than their fellow-sojourners along life's highway.

The shortcomings of the present day are due to the same factors. Because of the youth of the human race, and its consequent mental limitations, there is a magnitudinous lack of full data in things medical—as well as in the other branches of science. We are just upon the threshold; perhaps we will always be just upon the threshold. And, in scientific progress, we stand ahead of our predecessors only where we have collected and classified more data. The lack of facts leads to the lack of perspective, and consequently narrows the horizon of deductive success. The proper significance of the various fragments at hand is not fully comprehended, and thereby partial or complete failure often results. Another factor which enhances the possibility of failure is the lack of patience in the investigation. Were medicine still better organized, more careful and exacting data—inductive and deductive—would be accumulated. The gathering of new data in the present day is done by a pitifully few physicians. Think of the thousands upon thousands of medical men throughout the world who never contribute one single jot or iota to the progress of medicine. Their observations and conclusions remain locked in their breasts as they moulder away to nothingness.

At present, insufficient remuneration and too much irrelevant energy spent in competitive effort hinder the more rapid advance of the Art of Healing. This wonderful art shows some tendency in the present era of its expansion to degenerate into mechanical commercialism—ay, the clogging of the channels of healing by many of the irregular cults show that medicine has lost to more or less of a degree the personal contact with the patient. By way of interjection allow us to say that we consider these jackal-cults to be serving a very necessary purpose—they are but scavenging the fallen faith in medicine, faith which has shrunk from the idea of measuring the well-being of the body in dollars and cents; of overzealousness in things surgical; they

are, in short, the purgatory in which medicine is once more finding its soul.

Personal feeling often interferes with the accuracy of observation, and prejudice with the calculation of results. Were the bulk of practitioners given ample time and sufficient remuneration for their efforts—so that the grisly spectre of the wolf at the door were kept away—progress would be more rapid. Let not this be considered a plea for "State Medicine," which has proved to be such a fiasco in Britain. At that, however, slowly, through the concerted action of millions of efforts (correct and erroneous), by a few faltering steps at a time, the great mass of evidence is being sorted out; the fingerprints of sickness are being taken. Each once in a while some parcel of obsolete data is thrown into the discard and is replaced by other facts. More and more of the ills of humankind are being apprehended, described, and restrained—their fingerprints filed for future reference.

And what are the medical fingerprints of the present? They are those facts which, when ascertained, point conclusively to some one culprit as the ringleader in the morbid crime under consideration. At present there are relatively few, but each quarter-century sees their number increased. Little by little medicine is being shorn of its mysticism; the supernatural is receding. No longer, in most conditions does the physician play "it" in a gruesome game of Blindman's Buff, wherein he gropes, bewildered, after the phantom spectres of disease. His eyes are being opened; the spectres are becoming resolved into tangible criminals, whose actions are being classified and tabulated—whose fingerprints are made to betray them more and more as time goes on.

Verily, Sherlock Holmes is the greatest detective in fiction. Romance and glamour gather about his everyday life, and we applaud his exploits as wonderful; he is the by-word throughout the world for astuteness. We follow him through his reasonings with breathless interest.

And yet, the cases which are given us as solved by Sherlock Holmes number but a hundred or two. Your good, old family doctor has that record smashed a mile, with no one on the sidelines cheering *his* astuteness, which is fully as keen as that of the Sleuth of Baker street. To eke out the barest sort of living, he (the doctor) needs must have one case a day, seven a week,

thirty a month, three hundred and sixty-five a year. In a twenty-year practice, at the minimum rate, he would have solved seven thousand, *at the very least*—this good, graying detective, whose shoulders are stooping. Every case, from the simplest stomach-ache to the most complicated disease in the medical compendium, have been a detection-study of sickness-crime. Step by step, evidence has been sought out, the irrelevant winnowed from the important, the culprits found and apprehended or kept from extending their ravages. Countless times has he exposed himself to destruction—not to swift, sudden death that is dealt by a bullet, but the slow, lingering, merciless death of long-drawn suffering and pain—that he might save a victim from the morbid guerilla-warfare of sickness. At the beck and call of society, into filth and danger, ay, into the very bowels of death itself has his quest after the culprits gone; at the cost of his own health and comfort—even life—often knowing that nothing but reviling awaited him at the end of the case. His mistakes are flung back at him a thousand fold, often legal suit follows some slip which he made after hours of vigil, when his spent body was crying for rest, his numbed brain grappling in a fog with a but dimly seen assailant.

Nothing so very romantic about the half-shabby figure which comes to the house in response to the frenzied call for his aid. A far cry from the kindly twinkle in the crowfoot-marked eyes and soothing voice of your practitioner to the gaunt, ascetic face of our great Sherlock bent over a throbbing violin which sends its wild cadences ringing through the quiet of Baker Street's shadows. And still, from the time the family doctor received in his trembling hand his sheepskin until the thud of the clods on the lid of his coffin closes his career, his life has been a wonderful colorful romance to which nothing on earth can compare. He has seen his brethren lay down their lives in this great game of detection; the heroic examples of Lavoisier and Walter Reed have sent a gleam of encouragement to his stumbling footstep when the darkness of despair almost overwhelmed them.

And he has been real—*real*. He is not a creature of an artistic mind, but a familiar figure—a Rock of Ages to us all in our times of failing and doubt. Seen through appreciative eyes, his lonely figure—for *he* is lonely, very, very lonely—is

clothed in a soft radiance of Romance which brings peace and quiet to the mind, harassed and torn as it is in these days of mad rush, unrest, and sickness.

And, therefore, why should not Sherlock Holmes be the greatest of the legendary sleuths. He is but the embodiment, the personification, of the life of our greatest and most warm-hearted detective in life—our Family Doctor.

—R—

HISTORY OF THE KANSAS MEDICAL SOCIETY

Report of Committee on History

(Continued from February)

On the same date as the approval of the act of incorporation a meeting of the incorporators was held, Dr. Alonzo Fuller acting as chairman and Dr. S. C. Harrington as Secretary. A by-law was adopted providing for the election of a president, six vice-presidents, a corresponding secretary, recording secretary, treasurer and librarian, and the following were selected as the first officers of The Kansas Medical Society: S. B. Prentiss, president; Drs. A. Hunting, J. P. Root, J. F. Robinson, A. J. Ritchie, C. F. Kobb and M. F. Holliday, vice-presidents; Dr. Albert Newman, corresponding secretary; Dr. J. B. Woodward, recording secretary; Dr. A. Fuller, treasurer; Dr. M. Hartman, librarian.

A committee was appointed to draft by-laws; and another committee was appointed to prepare and report a code of ethics.

The next meeting was held on the call of the president at the Eldridge House in Lawrence, Feb. 23, 1860. At this meeting the national code of ethics was adopted as was also the by-laws submitted by the committee but no record of these by-laws seems to have been made.

At this meeting Dr. J. P. Root was elected president, Dr. J. B. Wheeler and J. H. Phelps, vice-presidents. The other officers were re-elected with the exception that Dr. S. B. Prentiss was elected treasurer in place of Dr. Fuller. The meeting adjourned to meet in Lawrence on the last Thursday in February, 1861.

A meeting was called for this date and after the reading of the minutes the Society adjourned to "meet on the last Wednesday in January at such place as may be designated."

It was not until the 31st of January, 1866, that the next meeting was called, at Topeka. There was no quorum present, however, and an adjournment was taken to

meet in April of the same year. The meeting was held in Lawrence, April 3, 1866. Dr. Root who had served six years as president, the longest term of any president in the history of the Society, was not present at this meeting, though he had presided at the Topeka meeting in January. In fact neither president or vice-president was present and Dr. A. Fuller was elected president pro-tem. The meeting proved to be the real starting point in the growth and importance of the Society. The following were admitted to membership: T. Sinks, G. W. Hogeboom, A. Campbell, J. W. Brock, G. C. Crook, O. P. Barbour, C. A. Logan, H. Buckmaster, C. C. Shoyer, S. B. Davis, W. B. Carpenter, L. Houston, M. S. Thomas, I. O'Brien, A. C. Van Duyn, G. E. Buddington, G. W. Walgamott, O. F. Searl, Charles Newman, J. L. Prentiss, S. C. Brown, H. P. Woodward, R. Aikman, D. W. Stormont, Dr. Boling and Dr. Sanders.

In this list will be noted the names of men who came to play a prominent part in making medical history in the state—men of high attainments, strong personalities, wide influence, who had much to do in shaping the future of the young state. Four of this list served later as presidents of the Society and one of them was its very efficient secretary for several terms.

The medical men in Kansas at that time were ambitious, farseeing and optimistic. They were impressed with the need for a sound medical education and if their efforts had succeeded medical education in Kansas would now be far advanced. In the minutes of this meeting in 1866 the following will be noted: "Moved and adopted that a committee of three be appointed to confer with the Regents of the State University in regard to the establishment of a medical department thereto. The Chair appointed Drs. Prentiss, Newman and Logan."

It may also be said they were not lacking in nerve, for at the same meeting it was voted to appoint a committee "to procure the passage of a law to print the transactions of the Society at the expense of the State."

Dr. C. A. Logan was elected president; Drs. Newman and Bailey, vice-presidents; Dr. D. W. Stormont, recording and corresponding secretary; Dr. J. L. Prentiss, librarian.

The next annual meeting was held in Leavenworth April 3rd and 4th, 1867. Fifteen members were present when the meeting was called to order, and twenty-six new members were admitted. Then papers

were presented and discussed. The following resolution was adopted: "Resolved, that the members of this Association be earnestly requested to form County and City Societies in their respective localities, as auxiliary to the State Medical Society." That this had to some extent been already accomplished is evidenced by an invitation from the Shawnee County Medical Society to hold the next annual meeting in Topeka.

By resolution a medal of the value of five dollars was offered for the best essay by a member of the Society on the endemic diseases of Kansas. One is unable to find anything in the minutes of the meetings of the succeeding years to indicate that the prize was ever awarded.

On motion a committee was appointed to prepare a draft of a law for the registration of the marriages, births and deaths in this state and secure its passage by the next legislature.

Dr. A. Newman was elected president, Drs. Brock and Parsons, vice-presidents, Drs. Stormont and Prentiss, re-elected secretary and treasurer respectively, and Dr. N. C. Clark, librarian.

The next annual meeting was held in Leavenworth, April 15, 1868. There were nineteen members in attendance and seven new members were elected, and one member expelled for unprofession conduct.

A committee, which had been appointed at the annual meeting in 1866 to secure some amendments to the charter, reported "That according to a late decision of the Supreme Court, the Legislature, under the present state constitution, cannot amend a special charter."

This decision has rather a far reaching effect, since the charter appears to grant certain so-called police powers to the Society.

The committee appointed to draft and secure the passage of a registration law, reported that they had introduced a law and it had passed the senate, but was never reached in the house. Thus it is, and so it always has been.

In the minutes of this meeting we learn of the first medical journal published in the state—*The Medical Herald*, published at Leavenworth. A motion was introduced to instruct the Committee on Publication to contract with the publishers of the *Medical Herald* to publish the proceeding of the Society. The following resolution was also unanimously adopted: "Resolved, that this Society heartily endorses the Leavenworth *Medical Herald*, and that each member is

respectfully requested to aid in its support and in extending its circulation."

Dr. John Parsons was elected president, Bailey and Thomas, vice-presidents, Stormont and Prentiss were re-elected and V. V. Adamson elected librarian.

On May 12, 1869, the Society met in Topeka. There were seven members present and five new members were admitted. The only paper preserved from this program was by Dr. Albert Newman on the subject *Specific Disease Poisons*.

The most important business transacted was the adoption of a new constitution and by-laws which were as follows:

CONSTITUTION

Article I. Objects.

The objects of this Society shall be the increase and diffusion of the knowledge and usefulness of the science and the art of medicine and surgery, and to harmonize the intercourse of the medical profession in this state.

Article II. Membership.

The members of this Society shall consist of such regular practitioners of medicine, residing in this state, as may be elected and qualified as directed by the by-laws. Gentlemen eminent in the profession, who are non-residents of this state, or graduates of medicine who reside in this state and have retired from practice, may be elected honorary members.

Article III. Officers.

The officers of this Society shall consist of a President, two Vice-Presidents, a Secretary and Assistant Secretary, a Treasurer and five Censors, who shall be elected at the annual meetings, and hold their offices for one year, and until their successors are elected and installed. They shall respectively perform such duties as may be required of them by the by-laws and resolutions of this Society.

Article IV. Meetings.

One regular meeting shall be held each year, to be designated the "Annual Meeting," which shall be at such time and place, from year to year, as the Society may elect. Special meetings may be held as provided by the by-laws.

Article V. Funds.

The funds of this Society shall consist of the initiation fees, annual dues, assessments, fines, and donations. No appropriation of money from the treasury or disposition of any property of the Society shall be made at other than the annual meeting.

Article VI. Punishments.

Any member may be fined, suspended,

expelled, or otherwise punished, in the manner provided in the by-laws; but no member shall be suspended or expelled except at an annual meeting and upon written charges, and after having been duly notified by the secretary of the nature of the charges, and of the time and place of trial.

Article VII. Code of Ethics.

The Code of Ethics of this Society shall always be the code adopted by the American Medical Association.

Article VIII. Auxiliary Societies

Auxiliary Societies may be organized, and may grant licenses to non-graduates, only under such rules and regulations as shall be prescribed by this Society.

Article IX. Amendments.

This Constitution may be amended or altered by the proposed amendment or alteration being submitted in full, in writing, at an annual meeting, and spread upon the minutes. At the next annual meeting it may be taken up and acted upon; and if the proposed amendment, or the substance thereof, receives the votes of at least three-fourths of the members present, it shall be adopted.

BY-LAWS

Article I. Membership

Section 1. The qualifications for admission to membership in this Society shall be as follows: The candidate must be a respectable practitioner of medicine, and must have good moral character, and be a graduate of a respectable medical college. Satisfactory proof of these qualifications must be furnished the Censors.

Sec. 2. An application having been reported by the Censors, the vote shall be taken by the Society by ballot. If two-thirds of those voting are in favor thereof the candidate shall be declared elected, and upon signing the Constitution and paying the initiation fee, shall be admitted to full membership.

Sec. 3. No candidate shall be present at the meeting of the Society after his nomination until his case has been disposed of.

Article II. Duties of Officers.

Section 1. The terms of the officers shall commence at the close of the meeting at which they are elected.

Sec. 2. The President shall preside at all meetings of the Society, preserve order, appoint all committees not otherwise provided for, sign all orders upon the Treasurer for the payment of money, when authorized to do so by the Society, and perform such other duties as the Society, or parlia-

mentary usage, may require of him. At the annual meeting, at the close of his term of office, he shall deliver an address upon some appropriate subject.

Sec. 3. In the absence of the President, first Vice-President, in his absence also, the second Vice-President shall act as President. In the absence of the President and both the Vice-Presidents the Society shall elect a President pro tempore.

Sec. 4. The Secretary shall keep a correct record of all the proceedings of the Society and prepare the same for publication, and shall have charge of and carefully preserve all books, papers and other documents of the Society, and keep a list of the members, with their post-office address; notify new members of their election within thirty days thereafter; conduct the correspondence; attest all orders drawn upon the Treasurer by order of the Society; and discharge such other duties as may be required of him, and makes a report of his doings, and the condition of the Society, at each annual meeting.

Sec. 5. The Assistant Secretary shall render to the Secretary such aid as he may be required of him, and make a report of his duties.

Sec. 6. The Treasurer shall have charge of the funds of the Society, collect all fees, dues and fines promptly, and keep a correct account thereof; pay out moneys only on orders signed by the President and attested by the Secretary; and, at each annual meeting, submit a detailed report of the exact condition of the treasury; and, at the end of his term, hand over to his successor all the moneys and other property in his possession belonging to his office.

Sec. 7. All applications for membership must be referred to the Censors, who shall immediately consider the same and investigate the qualifications of the candidates, as required by sections 1 and 2 of article 1 of these By-Laws, and report to the Society the facts in each case, together with their opinion as to the propriety of electing said candidates.

Article III. Committees.

Section 1. Four regular committees shall be appointed at each annual meeting, to report at the next annual meeting to-wit: A Committee on Practical Medicine; a Committee on Surgery; a Committee on Obstetrics; and a Committee on Materia Medica. Special committees may be appointed to report on special subjects, on recommendation of the Nominating Committee.

Sec. 2. The Committee on Nominations

shall consist of one member from each county represented in the meeting of the Society, who shall report to the Society the names of suitable persons for officers and for the regular committees for the ensuing year. They may also nominate special committees to report on such subjects as they may deem advisable. A Committee on Necrology shall be appointed at each annual meeting, who shall make appropriate obituary reports of members deceased during the year.

Sec. 3. A Committee on Publication shall be appointed at each annual meeting, of which the Secretary shall be ex officio member, whose duty it shall be to superintend the publication of the Transactions. Other committees shall be appointed from time to time, as may be required.

Article IV. Funds.

Section 1. Fees and Dues. The initiation fee shall be three dollars. Every member shall pay one dollar dues, annually, to be collected at the annual meeting. Assessments may be made at any meeting, by a vote of two-thirds of the members present.

Sec. 2. Fines. An Officer or member neglecting to discharge any duty assigned him, the obligation of which he has accepted, shall stand fined one dollar for such neglect, which may, for sufficient reasons, be remitted by a vote of the Society.

Sec. 3. Punishments. The penalty for a violation of the Constitution, By-Laws, or Code of Ethics, shall be fine, suspension, or expulsion. An affirmative vote of two-thirds of the members present, and a compliance with section 6 of the Constitution, shall be necessary for suspension or expulsion.

Sec. 4. A member neglecting or refusing to pay his dues or fines for two years after the same shall have become due, shall forfeit his membership, and his name shall be dropped from the roll.

Article V. Miscellaneous.

Section 1. Quorum. Seven members shall constitute a quorum for the transaction of business.

Sec. 2. Special Meetings. Special meetings may be called by the President and Secretary, on the written request of seven members, the Secretary to give twenty days' notice to each member, of the time, place and objects of said meeting; and no business shall be transacted except such as shall have been designated in the call.

Sec. 3. Notices. A notice shall be valid which has been served personally, or by

writing, deposited in the post-office, to the address of the party.

Sec. 4. Parliamentary usage shall govern in the transaction of business, where not otherwise provided for.

Sec. 5. Amendments. These By-Laws may be suspended or amended at an annual meeting, by a resolution submitted in writing, and receiving a two-thirds majority vote of the members present.

(To be continued.)

R

UNIVERSITY OF KANSAS CLINICS

From the Clinic of D. R. Black, M.D.

Department of Internal Medicine

A CASE OF SEVERE DIABETES ASSOCIATED WITH HYPERTENSION AND CHRONIC NEPHRITIS.

P. B. Age 57. Entered the metabolic clinic at Bell Memorial Hospital March 3, 1924, complaining of polyuria, thirst, shortness of breath, loss of weight and swelling of feet and ankles. Four years ago he had been seen by a doctor in Alabama who diagnosed his case diabetes, his symptoms being about the same as at present except he had no swelling of his feet and ankles and was not so short of breath. He was given dietary treatment and his symptoms rapidly subsided and he was in comparatively good health until a month ago when his present symptoms began.

His family history is negative as is his past history. He has always worked hard and has never been over weight. There is nothing of special interest in his dietary habits. His blood and urine chemistry on admission are as follows:

Blood—Sugar, 560. Urea nitrogen 12.61. Creatinine, 1.6. Uric acid, 3.8. NaCl, 490. CO₂, 32.6 Vol. %. Wassermann test, negative.

Urine—Sp. Gr., 1.036. Amber. Albumen, trace. Sugar, 4.3%. Acetone, positive. Diacetic acid, positive. 5-10 pus cells. Red blood cells, negative. Numerous hyaline casts. Numerous fine granular casts.

EXAMINATION

Height, 5 feet and 8½ inches. Weight, 172 pounds. Blood pressure-systolic 220, diastolic 125. Eyes—Pupils small, regular, react to light and distance. Throat—Tonsils buried, pharynx red. No adenopathy. Superficial and deep reflexes normal. Heart moderately enlarged to left. Soft systolic murmur at apex not transmitted.

Chest—Breath sounds clear. No rales. No dullness. Abdomen negative. The patient was unable to enter the hospital and

we had to try to plan treatment for him through the dispensary.

He was given a half maintenance diet and instructed him as well as possible as to its use. He was given twenty-five units of Insulin daily at the dispensary. We did not anticipate a brilliant result using this treatment and were not surprised to note that his urine continued to show sugar, ranging from .5 to 2.5 per cent. His blood sugar from 200 to 600 mg per 100 c.c. In the face of these unfavorable reports he maintained a reasonable degree of strength and usefulness until November 29, when he complained of swelling of his feet and ankles and shortness of breath. The next day he was markedly edematous, in fact he had an extreme general anasarca. His blood pressure was systolic 230 and diastolic 130. His heart was rapid and markedly dilated. He entered the hospital and his blood chemistry was as follows: Urea, 1861. Creatinine, 1.9 Uric acid, 4.1. CO₂, 28.6. Blood sugar, 360. Urinalysis, Sp. Gr., 1,030, acid, albumen positive, sugar 2.1 per cent, diacetic acid and acetone positive, many pus cells, hyaline and granular casts.

He was given digitalis and calcium chloride intravenously, placed on a salt free diet and was given one-half maintenance with 45 units Insulin. His blood sugar promptly fell and his edema began to subside. We thought his heart muscle improving, and were somewhat elated over the result. He got up at night and was walking at the foot of his bed and fell unconscious on the floor. He died a few minutes later.

AUTOPSY

Heart widely dilated. There was distinct pigmentation of muscle fibers with slight degeneration. There was a very acute pericarditis. The pancreas, curiously enough, showed nothing of distinct pathological interest. The kidneys were small, the surface slightly granular. The capsules stripped with difficulty. Microscopically there was distinct exudate within the glomeruli and also in the interstitial tissue with definite cloudy swelling of the tubules.

Dr. Wahl made a diagnosis of: Pericarditis and chronic diffuse nephritis.

It is interesting to note that in-so-far as kidney function tests are concerned, nothing was noted that would give us a clue to the severity of the nephritis.

From the Orthopaedic Clinic of Dr. C. B. Francisco

Bell Hospital, University of Kansas

CONGENITAL TORTICOLLIS (WRY NECK)

I wish to present to you a case of Congenital Torticollis that was operated on about six weeks ago.

Congenital Torticollis is one of the less common deformities and the condition is found most frequently in girls, 60 to 65 per cent of the cases reported occurring in females and the left side is also more frequently involved than the right, according to Whitman of New York. The cause is probably due to a constrained or fixed position in the uterus before birth resulting in shortening of the sternomastoid muscle. Stromeyer believes that the condition is caused by rupture or injury of the muscle at birth with resulting myositis and contraction. However, this is extremely improbable as the rupture of muscle tissue elsewhere in the body is practically never followed by myositis and contraction. It is quite true that a hematoma may occasionally occur in the mastoid muscle following a difficult delivery especially if this muscle is shorter than normal, therefore being a coincidence rather than a cause of the deformity. I recently saw such a case at my office in a child 4 weeks old. The hematoma, was about the size of a pigeons egg and had been noticed 2 weeks after birth in a difficult labor and the muscle was definitely shorter than its fellow of the opposite side.

Usually the condition is not very marked at birth and often is not noticed until the child begins to hold up its head. There is no pain associated with the deformity which increases with the growth. A shortening of a half inch at birth may be as much as 2 inches by the time the child is 4 years old. The head is drawn toward the shoulder on the side of the shortened muscle and the chin is rotated toward the opposite shoulder. This produces a structural change in the cervical vertebrae if the condition is not corrected, making it impossible to correct the deformity entirely after maturity has been reached. Often in infancy there is a well marked asymmetry of the face, the cheek being flatter, and the nose, corner of the mouth and the eyelid being drawn down on the affected side. This asymmetry is increased with the growth of the child, often affecting the eye sight.

This patient is B. L. C. 5 years old. She

came in holding her head markedly toward the left shoulder, chin toward the right and wearing glasses. See Fig. I. Her mother,



Fig. 1. Before Operation

stated that her birth was long but not particularly difficult and that nothing abnormal was noticed about the child until she began walking. At this time it was thought that her attitude was merely habit and of no importance, but by the time she was 3 years old she carried her head definitely inclined toward the left and could not incline it to the right, however, they were assured that she would outgrow this condition but as it got worse instead of better they brought her here for advice.

Examination revealed a definite shortening of the left sternomastoid. The clavicular portion was particularly well developed and markedly shortened, the left eye appeared smaller and the left side of the face flattened, no particular change in the bones of the skull could be made out and there was not much apparent contraction of the ligaments of the cervical vertebrae or other soft parts. The eye condition was reported as a probable strain rather than of an organic basis. Her general condition was fairly good and no other abnormalities noted.

About six weeks ago she came into the hospital and was prepared for operation.

Under an anaesthetic and with a sand bag under the shoulders the left sternomastoid was found to be quite terse. A tenotome was slipped under the sternal portion of the sternomastoid muscle about 1 inch above the joint and the tendon divided subcutaneously, the clavicular portion being divided in the same way at about the same level, the head was then stretched and forcibly manipulated toward the other side and a plaster cast, including the head and thorax, was applied with deformity reversed, that is, with the head toward the right shoulder and the chin rotated to the left. She had no inconvenience following the operation and went home the next day. Four weeks later the cast was bivalved and straps with buckles riveted on and the mother instructed to remove the cast daily and massage and stretch the neck for increasing lengths of time. She now has the cast off during the day but sleeps in it at night. As you can see she has complete range of motion but the facial asymmetry is still quite evident and there is still a definite tendency to assume the old position. She will require further observation and should sleep in the over-corrected position for some time, but with training the tendency to assume the old position will entirely dis-



Fig. 2. After Operation.

appear as will the asymmetry and the result will be perfect. See Fig. II.

If the condition is noted at infancy the

mother should be instructed to stretch the contracted side and to arrange the pillows so that as the child sleeps the head is held toward the opposite side and often the shortening can be overcome. I think it is well to make a plaster shell for these infants to sleep in, but if the condition can not be corrected, they should be given an anaesthetic, stretched, as it is not often necessary to divide the muscle, and put in a cast in the overcorrected position. When they are 6 to 8 months old usually 2 or 3 weeks is sufficiently long to maintain the overcorrection in infants.

When I operated this case I showed a woman 45 years old with a congenital wry neck. She had a very marked deformity, and very unpleasant features and expression, but she was also having extreme neuritic pains in her neck and shoulder. She was in fact practically entirely disabled. I have not operated upon her as yet as it is extremely doubtful that an operation would give her relief owing to the structural changes in her spine. She illustrated the importance of early operation in these cases.

I trust you will remember that these cases can be entirely relieved of their deformity, if properly managed, when in their childhood. I wish to remind you, however, that there is an acquired condition of wry neck, which however, comes on more or less acutely, is painful and is the result of cervical disease of nerve or muscle irritation, producing, therefore, a spasm of the muscles rather than a shortening. Acquired torticollis should not be confused with the congenital type as the treatment is not the same.

—R—

The Effect of Intravenous Injections of Calcium Chlorid on the Kidney

During the last two years, in the Mayo Clinic, patients with obstructive jaundice requiring operation have been given intravenous injections of calcium chlorid pre-operatively in order to reduce their coagulation time, and to assist in the prevention of bleeding. Five cubic centimeters of a 10 per cent aqueous solution of calcium chlorid has been given daily for three days, and hastening of blood coagulation, as evidenced by a lowering of blood coagulation time, and the absence of postoperative hemorrhage in jaundiced patients—have been striking. John P. Bowler and Waltman Walters, Rochester (*Journal A.M.A.*, Oct. 18, 1924), report now on their experi-

mental work done on dogs on whom an artificial obstructive jaundice was produced by ligating the common bile duct under anesthesia and with aseptic technic. The effect of intravenous injections of calcium chlorid in various amounts on the kidney was studied, the kidneys being removed at the necropsy. With the exception of the usual changes in the kidneys accompanying obstructive jaundice, no other structural pathologic changes were found. Nor was it possible to produce deposits of calcium in the kidneys by doses ranging from 8 gm. for each kilogram of body weight to the lethal dose of 280 gm. for each kilogram of body weight in normal dogs, and of 380 mg. for each kilogram of body weight in jaundiced dogs. It was not possible to demonstrate a deleterious effect on the kidneys of any of these dogs, either clinically or pathologically.

—R—

Roentgen-Ray Treatment of Hyperthyroidism.

A study made by Thomas A. Groover, Arthur C. Christie and Edwin A. Merritt, Washington, D. C. (*Journal A. M. A.*, Nov. 29, 1924), of the results of roentgen-ray treatment of hyperthyroidism in individual cases and by means of the incomplete statistics so far available indicates that this method will probably furnish about the same percentage of permanent cures of exophthalmic goiter as surgical treatment in the best hands. The roentgen-ray method has the following advantages: (a) There is no mortality resulting from the treatment; (b) patients will submit to this method of treatment at a much earlier stage of the disease than to operation; (c) the method is applicable to inoperable and to post-operative cases. Patients with hyperthyroidism should first receive roentgen-ray treatment, and be operated on only if the disease fails to respond to this treatment. This would not apply to patients with toxic adenoma with mild hyperthyroidism who have no vascular or other diseases which render them inoperable. The operative mortality in this class of cases is very low, and surgery has the great advantage of removing the tumor. Our general impression is that roentgen-ray treatment is not so useful in toxic adenoma as in exophthalmic goiter, but that it may be of great advantage in rendering very toxic cases operable and in the treatment of cases that are inoperable for reasons other than the hyperthyroidism.

THE JOURNAL

of the

Kansas Medical Society

W. E. McVEY, M.D. - - **Editor**

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ETHICAL ADVERTISING

As far back in the years as most of us can remember there has been more or less discussion on the subject of advertising by the medical profession. The newspapers continued to jeer at what they termed our antiquated code of ethics until they—or the best of them—adopted practically the same principles of ethics as a guide in determining the admission to their columns of all kinds of commercial advertising. Some of them still fail to recognize the application of these principles to doctors.

There may have been some rather arbitrary interpretations of the principles of ethics as applied to advertising, but these principles are based upon an old code that cannot be evaded, even in this modern and progressive age, by any group of honorable business men with gentlemanly instincts.

An announcement that a man was a better doctor than the other men in the community was obviously immodest and unprofessional and very probably untrue. An advertisement that he was a specialist in diseases of women, implied that he was better qualified to treat such cases, and was therefore also regarded as unprofessional and immodest; but he could announce that his practice was limited to dis-

eases of women, for presumably that did not imply any claim to superiority. In the same way and for the same reasons, men could not claim to be specialists on the eye and ear, etc., though they could ethically announce a practice limited to any branch of medicine they were engaged in and later it was considered ethical to call ones self an oculist, a laryngologist, an obstetrician, etc., because presumably these titles did not imply superiority. It was however a remission of the former, stricter interpretation and led to still greater freedom in the application of the code.

There appears to be an inherent desire among a considerable part of the members of our professions to inform the public in some way that they have more acute acumen in diagnosis of diseases, more certain methods of treatment—superior qualifications in other words—than their confreres. A great many and a great variety of methods have been found for accomplishing this purpose without subjecting the ambitious recipient of the benefits to severe criticism. In days gone by, when one or more medical colleges flourished in every sizable city, a faculty connection of some kind was a desideratum to be earnestly sought and diligently retained. For such a connection was essentially a declaration to the public of the holders superior ability—or his opportunity to acquire superior qualifications.

With the passing of these numerous small medical colleges, those who reaped the benefits of this sort of advertising needs must fall back upon their past records and when occasion permitted modestly refer to their former connections with these schools.

With the passing of the "small time" medical school however, there also passed for the time being a real public service—the free dispensary. Could these have been continued along the same lines upon which they were conducted as teaching clinics, some advertising benefits might have still been realized by those who gave them this service. There were no organizations to manage them properly. There was no source of financial support apparent and there was no incentive to continue a serv-

ice which offered no prospect of remuneration, reward or renown.

The medical profession having failed to continue the public service which it had inaugurated, as an aid in teaching when the opportunity for teaching no longer existed; the real need for such service as the free dispensary had rendered the public was soon recognized by other organizations having amongst their charitable tendencies an inclination to control or direct the application of the healing art with the gratuitous assistance of its devotees. The plan upon which the free dispensaries were conducted was elaborated and their service under various organizations has been differentiated and specialized so that instead of promiscuous free dispensaries where every imaginable ailment might be met with, we now have baby clinics, cancer clinics, tuberculosis clinics, mental clinics, etc.

These clinics all over the country are rendering excellent service—a far reaching service—to the people in teaching them the importance of the early diagnosis of cancer, the early diagnosis and proper care of the tuberculous, the proper care of babies and the proper management of the mentally abnormal. The men who have been induced or have volunteered to conduct these clinics have made such service possible, and if through this service the people have been impressed with their superior attainments they are justly entitled to the benefits arising therefrom. They have more than earned whatever amount of advertising it may have given them by their studious devotion to a thankless undertaking.

It might also be said in passing that this kind of advertising is legitimate and ethical for, like the college professor, the clinic operative must demonstrate his ability. The only justifiable criticism lies in the fact that these clinics, especially those fostered by lay-organizations, often lack professional recognition. In several states, in order that physicians may properly hold a connection with them, such clinics must be approved and controlled by the county medical society.

Not every one has an opportunity to make

a connection of this kind; not every one has the industry or the enterprise to carry such a connection to a successful issue. And at any rate it is but a slow and laborious method of establishing a medical career. There are indirect sources and indirect channels of publicity for those who have aristocratic instincts.

For during the past few years a medical aristocracy has grown up in this country, an aristocracy that has no genealogy, no traditions, but has arisen *de novo*. Apparently no distinguishing qualification is a prerequisite to membership—neither unusual accomplishments in surgery or medicine, nor accumulated knowledge of long and varied experience—for many of its members can boast of only mediocre ability. But membership confers a title, a title that may be worn with honor to the wearer, that is regarded with more or less respect by the more democratic members of the profession, and that has come to be regarded as a guaranty of ability and good repute by a part of the public.

To advertise in the newspaper that one is a better doctor than his confreres is immodest and likely to be untrue, and for that reason was regarded as unethical. To announce ones superiority by wearing a distinctive title or to inform the public through personal items in the newspaper that one is a member of a medical aristocracy is regarded as ethical.

The American Medical Association including its branches is democratic and admits to its rolls of membership every qualified practitioner who does not profess adherence or give support to any exclusive dogma or school. Membership in the county unit of this organization is evidence of qualification and a guaranty of professional standing; and is so recognized by hospitals, insurance companies, and the public to a certain extent. But few, if any members of the American Medical Association adorn their signatures with initials indicating such membership. Such a title should be unequivocally ethical, it implies no superiority, suggests no unfounded claims to distinction and can be worn with

fully as much honor to the wearer as a title of aristocratic origin.

—R—

SOME PROPOSED LEGISLATION

Several bills have been introduced during the present session of the legislature that the medical profession is more or less interested in.

Senate Bill No. 344 by Senator Getty relates to the annual registration of physicians and surgeons in counties of 110,000 inhabitants. This bill has been recommended for passage by the committee to which it was referred. The text of the bill is as follows

"Section 1. In all counties now having, or hereafter attaining a population of more than one hundred ten thousand inhabitants, each physician and or surgeon residing therein, and each non-resident physician and or surgeon who has an office or intends to practice in said county shall, annually, between the first and twentieth days of December in each year, present his certificate issued under the provisions of section 65-1001, 65-1002 and 65-1003, Revised Statutes of Kansas, 1923, to the clerk of said county, and the said county clerk shall thereupon issue to said physician a license attesting that said person is duly recorded as a physician and/or surgeon in said county for a period expiring on December 31 of the year subsequent to the time when said physician and/or surgeon presents his certificate for recordation; Provided, always, That should any physician and/or surgeon for any reason present his certificate after the month of December, in any year, the license issued by the county clerk shall expire on December 31, next ensuing.

Sec. 2. The county clerk of said county shall enter the name of each licensed physician and/or surgeon in a book kept for that purpose, and shall collect from each physician and/or surgeon for issuing said license, a fee of ten dollars annually; said county clerk shall pay all fees collected under this act of the county treasurer, who shall keep said moneys in a separate and distinct fund to be known as the "county

medical library fund," and said moneys shall be expended and used by the board of county commissioners of said county for a medical library in said county, which medical library shall be maintained at the courthouse, or elsewhere, as may be designated by said board of county commissioners, and be available for public use.

Sec. 3. No physician and/or surgeon in any said county shall be required to pay a license or occupation tax in any city or town in said county.

Sec. 4. Any person who shall violate any of the provisions of this act, shall, upon conviction, be deemed guilty of a misdemeanor, and shall be subject to a fine of not more than five hundred dollars, or to imprisonment in the county jail not to exceed one year, or to both such fine and imprisonment.

Sec. 5. All acts and parts of acts in conflict with this act are hereby repealed.

Sec. 6. This act shall be in force and effect from and after its passage and publication in the official state paper."

Apparently this bill has some merits and marks a progressive attitude on the part of our law-makers, but the purpose for which the annual fees are to be collected is destined to failure. At this time a medical library is not simply a collection of books and magazines; but a thing that must be carefully and intelligently developed. In other words, a medical library that could be of any considerable service to the physicians in any community implies the constant employment of an efficient librarian.

Any service which the physicians in any community—a sufficient number of them—will get from a county medical library will not justify the assessment of ten dollars a year. After such a library has been established for a year or two very few will find it convenient to visit it.

This bill, if it becomes a law, will for the present at least only apply to Wyandotte county and is no doubt so intended and here such a fund could be used to the greatest advantage in building up and maintaining the library at the medical school.

Since such a law will only affect Wyandotte

dotte county it should not concern the profession outside of Wyandotte county, except that it also provides that it shall be effective in counties hereafter attaining a population of more than 110,000 inhabitants. Several counties in the state are likely to reach this status before many years, and there is no discretionary provision in the matter of enforcing this proposed law. Under such circumstances a great injustice will be done. In Shawnee county for instance, the Stormont Library is maintained at the State House and just as accessible to the physicians as would be a library at the Court House or any other place. The maintenance of the Stormont Library is provided for by the interest on a fund donated to the Kansas Medical Society by Mrs. Dr. Stormont.

It would certainly be unjust to tax the physicians in Shawnee county ten dollars to create a county medical library when they already have access to one much larger than the fund so collected could provide for them.

It is possible that some other county than Wyandotte may attain a population of the specified number of inhabitants, in which county there may be several cities located. The question then of locating the library may become a serious problem any solution of which will do injustice to a considerable number of the practitioners who are compelled to pay the license fee. If this bill should become a law and should prove to be constitutional, which is doubtful, the practitioners in a county may be compelled by a similar law to establish and maintain a laboratory—which would render a much greater service to all the doctors than will a library.

Senate Bill No. 472 by Senator Getty has also been recommended for passage by the committee to which it was referred. This bill simply gives authority and is not compulsory. Its text is as follows:

"Section 1. The county superintendent of public instruction of each county in this state having a population in excess of 120,000 inhabitants, shall have the authority to appoint a public-health nurse to work in

the public schools of such county; such public-health nurse must be a registered nurse of this state as defined by the laws of this state and must have had at least nine months experience as a public-health nurse.

Sec. 2. It shall be the duty of such public-health nurse to make inspections and give health and hygiene instruction and demonstrations to pupils in the public schools in such county outside the corporate limits of cities of the first and second class, and to advise with the school boards and instructors in such schools in all matters affecting health, hygiene and sanitation in connection with such schools, and assist in the prevention of epidemics, and to perform such other duties as are usually performed by public health nurses, under the direction and supervision of the county superintendent.

Sec. 3. The salary of such public-health nurse shall be fixed by the superintendent of public instruction of such county, but shall not exceed \$1,800 per year. Such salary shall be paid in monthly installments, and the county commissioners, of any such counties shall provide said nurse with transportation, equipment, blanks, stationery, postage, and such other things as shall be reasonably required in the performance of the duties of such public-health nurse, and they shall provide a fund for the payment of the above items and salary by levying a tax upon all taxable property in such county outside the corporate limits of cities of the first and second class.

Sec. 4. No public-health nurse shall be employed under the term of this act to commence work until January 1.

Sec. 5. This act shall take effect and be in force from and after its publication in the official state paper."

—R— CHIPS

Tutokain is the new substitute for cocaine. It is said to be non-poisonous and can be sterilized by boiling. It is a preparation derived from the manufacture of artificial rubber.

Hexylresorcinal is the new internal antiseptic. It is fifty times as strong as car-

bolic acid and can be taken internally without injury (?) to the patient. Dr. Veador Leonard of Johns Hopkins School of Hygiene and Public Health and his assistants are the discoverers of the new antiseptic.

It will sure get the bugs in their hidden habitat in the inner man.

The following extract is taken from a letter recently received by one of our correspondents from the treasurer's office of an insurance association.

"We are in receipt of a Health & Accident application on the part of Miss Z—— S—— in your city. She states in her application that you treated her in 1924 for Streptococcus operation. From your recollections and your files was this a chronic condition? Did she undergo a successful operation?"

There is room for the display of much abstruse philosophy and for the coining of many new words in the discussion of subjects about which nothing is or can be definitely known.

Smith (*Journal Intravenous Therapy*, Feb.) claims that a case of pneumonia is cured or lost in the first three days of the disease. The use of guaiacol and iodine intravenously during the first few days will lower the mortality strikingly. The average adult injection is 20 cc. of a solution containing 3 grains of guaiacol and two-thirds of a grain of iodine. The injections may be repeated daily or every twelve hours until the fever is controlled.

Just why it is necessary to administer either guaiacol or iodine intravenously, or why they should be more efficient when so administered, is rather difficult to understand.

Myerson (*Arch. Otolaryngology*, Feb.) in summarizing his article on lung abscess after tonsillectomy says:

"It is not the aspiration of tonsillectomy mixture that is important in the production of lung abscess following tonsillectomy, but the failure of a given portion of the lung to expel the content that is aspirated. A normal lung bed and bronchial tree would indicate a normal expulsion force. Lung tissue and smaller bronchial elements temporarily damaged by increased concentration and prolonged administration of ether, or permanently damaged by influenza, pneumonia or tuberculosis, indicate an inability to expel aspirated material. This

involved area becomes the site of election of a suppurative lesion. This study indicates that all tonsillectomy patients should be given a careful preoperative survey, with special reference to the pulmonary tract. More accurate and complete histories should be taken in these patients, to rule out previous pulmonary disease. Physical examinations should be performed as a routine. It should always be our aim to avoid the distressing complication of lung abscess. In the presence of known pulmonary disease, we should be forewarned and plan our operative procedure accordingly."

The recently published book by Mollgaard and his collaborators on the new gold treatment of tuberculosis gives the properties of "Sanocrysin," which is sodium aurothiosulphate, and the animal experiments which have been carried out. The serum from calves previously injected with killed tubercle bacilli and tuberculin, which is used in connection with the gold salt, is regarded as an antitoxic serum that neutralizes toxins liberated in the tuberculous animal by the action of the drug. Tests are reported on the effect of "Sanocrysin" and serum in calves injected intravenously with bovine tubercle bacilli. The results are said to be favorable but the evidence is not convincing. The clinical reports in the book reveal that the treatment is of no value in miliary tuberculosis or in tuberculosis leptomeningitis and that in advanced and serious cases of pulmonary tuberculosis the treatment is perilous and offers "only a slight chance of recovery." It remains to be determined whether any better results can be obtained with the sanocrysin-serum treatment than without it. There does not appear to be any reason for imagining that the particular gold salt used by Mollgaard can have any different effect than the other gold salts which have been investigated in the past and abandoned. At present there is no justification for rushing into the treatment of tuberculosis with this drug. (Jr. A.M.A. Feb. 14, 1925).

Dr. J. S. Rodman, Secretary of the National Board of Medical Examiners, announced today that three additional states, Michigan, Oklahoma, and Wyoming, have notified the Board that henceforth they will accept its certificate as qualifying physicians to practice medicine in those states.

This make a total of 31 states which now recognize the Board's certificate granted to candidates passing its uniform qualifying examinations, in addition to the territory of

Porto Rico, the Military Reservation of the Canal Zone, and England and Scotland. The states are as follows: Alabama, Arizona, Colorado, Delaware, Georgia, Idaho, Illinois, Iowa, Kentucky, Maine, Massachusetts, Maryland, Michigan, Minnesota, Mississippi, Nebraska, New Hampshire, New Jersey, New York, North Carolina, North Dakota, Oklahoma, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Vermont, Virginia, Washington and Wyoming. In 10 other states favorable legislation is now pending and it is expected that eventually the certificate granted by the Board will be good in all parts of the country.

The new state board of health has been appointed by Governor Paulen and confirmed by the state senate. The selection made by the Governor is another evidence of his good judgment and his intent to serve the people to the best of his ability:

The members of the new board are: Dr. Clarence A. McGuire, Topeka; Dr. Walter A. Carr, Junction City; Dr. J. H. Hensen, Mound Valley; Dr. Addison Kendall, Great Bend; Dr. Clay E. Coburn, Kansas City; Dr. Arthur J. Anderson, Lawrence; Dr. V. C. Eddy, Colby; Dr. Walter J. Elerts, El Dorado; Dr. Arthur E. Hertzler, Halstead. Thomas Amory Lee of Topeka, is attorney for the new board.

The British Medical Journal discusses the multiplicity of barbituric acid hypnotics which English physicians are importuned to prescribe. In America a similar condition exists. The numerous barbital derivatives and mixtures of these with other drugs result from the fact that we have no satisfactory method of evaluating the hypnotics. Apparently the proprietary interests have taken advantage of this situation, so that the proponents of these barbital derivatives claim various specific advantages for them. British physicians complain of the many market names for substances which have practically the same action, yet with no indication of their derivation from the original and best known drug, barbital. In this country, the Council of Pharmacy and Chemistry provides information concerning the composition and actions of just such products. Until scientific investigators have devised a satisfactory evaluation of this class of hypnotics, it would be much more in keeping with scientific advancement were proprietary houses to refrain from putting out new derivatives, and physicians to limit their prescriptions to the

two drugs, barbital and phenobarbital—the only barbital preparations which have been accepted for New and Nonofficial Remedies. The danger to the public of the use of barbital hypnotics is of growing concern. Barbital, itself, has been the cause of many accidental deaths, and its use is not free from addiction. In England, barbital is included in the poison schedule and further restrictions of its sale is now being considered there. (Jr. A.M.A., Feb. 7, '25.)

Adverse reports have recently been published in regard to the alleged functions of preparations of the mammary gland. A survey of the literature might lead one to believe that the activity of this structure is in some way related to the menstrual function and that the gland exerts an inhibitory effect on the ovary. Yet carefully controlled administration of mammary gland substance, by Charlton and Rickey, to women of reproductive age has failed to furnish evidence of constant effects, if any, on ovarian activity in persons with normal or abnormal menstrual histories. The possible influence of mammary substance on the estrual cycle of animals has also been studied. The results were entirely negative. In no instance was any effect from feeding mammary gland apparent. The facts at hand fortify the position of the Council on Pharmacy and Chemistry to omit mammary gland preparations from New and Nonofficial Remedies because there is no clear cut evidence to show that administration of available products is of value. (Jr. A.M.A. Feb. 7, '25.)

R

DEATHS

Dr. Edward Lawrence Wilson, aged 86, died at his home in Marysville, February 16, 1925. Dr. Wilson was born in Pickering, Ontario, Canada, August 10, 1838. He came to the United States at the age of 22. He served as a medical officer in the Civil war and located in Marysville in 1868, where he has continued in practice until his death. He served two terms in the state legislature and was at one time mayor of Marysville.

R

SOCIETIES

SHAWNEE COUNTY SOCIETY

The March meeting of the Shawnee County Medical Society was held at the University club, Monday evening, March 3.

The following program was given:

Dr. M. L. Bishoff, Traumatic Surgery of the Abdomen.

Dr. W. D. Storrs, Duodenal and Gastric Ulcer.

Dr. R. B. Stewart, Acute Surgical Conditions of the Gall Bladder and Pancreas.

Dr. M. K. Lindsay, Ileus.

Dr. W. M. Mills, Surgery of the Large Intestine.

Dr. C. E. Joss, Urgent Pelvic Surgery.

The April meeting will be held at St. Francis Hospital.

EARLE G. BROWN,
Secretary.

—R—
Medical School Notes

Dr. E. J. Curran, read a paper before the section of Ophthalmology of the New York Academy of Medicine on February 16th. The title of the paper was "Cauterization in Glaucoma," and the discussion was opened by Dr. Arnold Knapp, of New York City, N. Y.

Dr. C. W. Green, Prof. of Physiology in the University of Missouri was a recent visitor at the medical school.

Dr. Claude F. Dixon, '22, now a member of the Mayo Clinic Staff read a paper on Pernicious Anemia at the last meeting of the Kansas City Academy of Medicine.

Dr's. W. M. Mills and W. F. Bowen of Topeka visited the medical school recently.

Dr. Richard Helman has returned from his surgical internship at the New Haven Hospital and is now practicing in Kansas City.

—R—
OFFICIAL NOTICE

RESOLUTION TO AMEND THE CONSTITUTION

At a meeting of the Council of the Kansas Medical Society, held in Kansas City, Kan., January 20, the following resolution to amend the Constitution was approved and recommended to the House of Delegates for their consideration at our next annual meeting:

"Resolved, That Section 1 of Article XIII of the Constitution be amended by striking out \$3.00 in the fifth line of said section and inserting therefor, 'five dollars,' and that Section 2 of Article XIII be amended by striking out the word 'one' in the first line of said section and inserting therefor the word 'two'."

The resolution was approved by the

unanimous vote of those present, and was ordered published in two different issues of the Journal, in compliance with Article XVI of the Constitution.

J. F. HASSIG, M.D., Secretary.

February 2, 1925.

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The Western Physiotherapy Association

Arrangements are all completed for the Seventh Annual meeting of the Association, which will be held at the Little Theatre, Kansas City, Mo., Thursday and Friday, April 16 and 17, under the presidency of Dr. L. A. Marty of Kansas City. A number of men of national reputation will be present to address the members. The medical department of U. S. A. will also be represented. Dr. T. Howard Plank of Chicago will hold a clinic at the General Hospital on the afternoon of April 16. Members of the Association desiring to present cases for diagnosis or operation may make arrangements with the secretary for these cases to have the personal attention of Dr. Plank. The preliminary program is as follows:

"Obstipation" and "Reaction of Degeneration" (illustrated) Frederick H. Morse, M.D., Boston, Mass.

"Combination of Electrocoagulation and Radiotherapy in Malignant Tumors." Gustav Kolischer, M.D., Chicago, Ill.

Title to be announced, Miles J. Breuer, M.D., Lincoln, Nebr.

"Phototherapy in Hay Fever," J. L. Myers, M.D., Kansas City, Mo.

"Phototherapy in Skin Diseases," (Illustrated by moving pictures) Lynne B. Greene, M.D., Kansas City, Mo.

"High Frequency Currents," A. David Willmoth, M.D., Louisville.

"Physiotherapy in a General Hospital," E. C. Henry, M.D., Omaha.

"Actinic Rays in the Treatment of Infections," Wm. E. Howell, M.D., Chicago.

"The Mercury Vapor Lamp and the Carbon Arc in Ultra Violet Therapy," A. J. Pacini, M.D., Chicago.

Title to be announced, Curran Pope, M. D., Louisville.

"The Goiter Question," Edward G. Blair, M.D., Kansas City, Mo.

Others on the program will include Drs. Byron Sprague Price, New York City; Burton B. Grover, Colorado Springs; T. Howard Plank, Chicago; and W. B. Chapman, Carthage, Mo.

363,063 Cases of Venereal Disease Reported in 1924

An increase in the number of cases of venereal disease reported in the United States in the year which ended June 30, 1924, over the number reported in the previous corresponding year is disclosed by the figures recently made public in the annual report of the Division of Venereal Diseases of the United States Public Health Service. The report indicates that the increase in the fiscal year 1924 amounts to 27,382 cases or 7.2 per cent. A total of 363,063 cases of venereal disease were reported to the various state boards of health from all sources. This total was composed of 193,844 cases of syphilis, 160,790 cases of gonorrhea, and 8,429 cases of chancroid.

"The fact that the 1924 statistics show an increase over those for 1923 does not necessarily mean that venereal disease was any more prevalent in the United States last year than in the year before," explains the Chief of the Division of Venereal Diseases.

"The greater number of cases now on record at the state boards of health," he continues, "may well be accounted for by the increased efficiency in detecting these maladies and by more conscientious reporting of cases on the part of private physicians. For a long time the danger from syphilis and gonorrhea were greatly enhanced by the fact that these diseases were carefully covered and concealed and were often kept secret even from physicians who might have brought about a cure. Fortunately people are now learning that they must go to a reputable physician or clinic if they wish to be cured, and laws requiring that these cases be reported to the state boards of health are making it possible to obtain some idea as to the prevalence of syphilis and gonorrhea in the country, although there are many cases that still escape discovery."

During the fiscal year just passed, 504 public clinics reported to the state boards. These clinics treated 118,023 new cases of venereal disease made up of 65,046 cases of syphilis, 49,029 cases of gonorrhea, and 3,949 cases of chancroid. A total of 2,147,087 treatments were given. The fact that these clinics made 302,152 Wassermann tests for detecting syphilis and 203,008 examinations to discover gonorrhea would seem to indicate that people are beginning to realize the terrible consequences that follow in the wake of these diseases and are willing to take advantage of reputable opportunities for cure.

Reports from 37 correctional and penal institutions were received by the division. The efforts of those in charge of these institutions have resulted in a large increase in the number of venereally diseased persons discovered and treated. New patients to the number of 7,045 were admitted to treatment in 1924, an increase of 44 per cent over the year 1923.

The menace of venereal disease is one that is being fought by the United States Public Health Service and the various state boards of health acting in cooperation with municipal health officers. These governmental agencies are trying to impress upon parents, teachers, young people and others the need of wholesome sex education, of prompt medical attention and the necessity for the passage of modern health ordinances and legislation. Among the social institutions which can aid in the fulfillment of this program are the home, the school, the church and the press.

R Cerebral Malaria

Otto Tiemann Brosius, Barranquilla, Colombia (*Journal A.M.A.*, Sept. 13, 1924), reports the case of a boy, aged 10, who when first seen was in a semiconscious state with convulsive seizures, screaming frantically at spasmic intervals. Symptoms suggestive of tetanus were present and an enlarged spleen. A blood smear stained by Hasting's method, showed the presence of both the malignant and benign tertian parasites. An intravenous injection of 6 grains (0.4 gm.) of quinin dihydrochlorid was given immediately and repeated twice that day, after four-hour intervals. The following day, three more intravenous injections of quinin dihydrochlorid, of 6 grains (0.4 gm.) each, were again administered at six-hour intervals. On the third day, the quinin was administered in the same way as on the preceding two days. By the morning of the fourth day, the patient had regained complete consciousness. Quinin dihydrochlorid was now given by mouth three times a day, in 6 grain (0.4 gm.) doses, for six days more. Then 5 grains (0.3 gm.) was given three times a day for ten days, after which, for ten days more, 5 grains (0.3 gm.) was given mornings and evenings. Thereafter a tonic was administered. The case is illustrative of the fact that blood smears should be examined in almost every case in tropical lands, and that cerebral malaria should not be too quickly eliminated in a difficult differential diagnosis.

Cessation of Diabetes Insipidus on Roentgen-Ray Treatment of Pituitary Gland

The evidence presented by E. B. Towne, San Francisco (*Journal A.M.A.*, Dec. 27, 1924), suggests that a cure of diabetes insipidus was effected as a result of recession of a pituitary tumor under roentgen-ray treatment. It is said to be the first case of the kind on record. This patient suffered from diabetes insipidus, associated with one definite sign of a lesion in the vicinity of the optic chiasm—a defect in the upper temporal quadrant of the right visual field. A diagnosis of pituitary tumor was made, and the patient was treated by roentgen-ray cross-fire to the pituitary region, in hope of causing recession of the tumor. Three months later the visual fields had returned to normal and have remained so. The urinary output dropped from about 8 liters to about 3.5 liters in the first three months; there was a recurrence at the fifth month which again appeared to respond to the roentgen-ray; and there was another recurrence and similar, though slower, response beginning in the eighth month. Seventeen months after treatment was started, the output dropped to 2.5 liters, and it has remained at about that point until the present time, over three years after the patient came under observation. Very striking improvements and relapses in the physical and mental condition of the patient coincided with the drops and rises of the urinary output. The net result, clinically, is that a totally incapacitated man has become an efficient wage-earner.

—R—

A New Mercurial

What has been done for arsenic by the skill and patience of Ehrlich and his co-workers—that is to say, the presentation of it in a form that combines spirocheticidal activity with comparative safety of administration—has been done, it seems, for mercury also. This has long been the aim of chemical research—to find a mercurial compound that would kill the spirochete of syphilis without injuring the patient; in other words, a mercurial compound that could be administered in spirocheticidal doses.

Dr. Gruhzt, of the Parke-Davis laboratories, reports the demonstration of this property in Mercurosal administered intravenously to animals inoculated with syphilis. Two, or at the most three, doses elim-

inated the spirochetes completely from the syphilitic lesions. The doses corresponded to a dose of 0.2 gram for a man weighing 150 lbs., and it is believed that ten or twelve intravenous injections of a dose of this size should change a positive Wassermann to a negative in the primary stage of syphilis. Nevertheless, arsenic also (in the form of arsphenamin) or bismuth (as the salicylate) is advised, and a continuation of the treatment at intervals for two or three years.

Literature on Mercurosal is offered to physicians by Parke, Davis & Co., the manufacturers.


—R—

A Case Citing an Additional Use for Belladonna

In the case reported by Charles Everett Haines, New Rochelle, N. Y., (*Journal A.M.A.*, Oct. 18, 1924), belladonna not only relieved a condition diagnosed as vagotonia, but supplemented the roentgen ray in assisting at an important decision with regard to the therapeutics. An apparently healthy man, aged 27, came to me. The patient complained of a sense of epigastric fullness and distress beginning immediately after eating and persisting for an hour or more. The distress was not relieved by sodium bicarbonate, nor had it shown periods of remission, as pain from an ulcer tends to do. Roentgen-ray examination suggested carcinoma of the stomach. The patient was put on tincture of belladonna, 8 drops, three times a day after meals for three days, until the tongue was slightly dry and the vision a little blurred. Then another series of roentgenograms was taken. There was no suggestion of any lesion. The patient was given tincture of belladonna, 6 drops, three times a day after meals for one week, after which the dose was gradually reduced until it was discontinued at the end of one month. The patient has not had any distress during the two years since the drug was stopped.

—R—

According to statistics compiled by the Department of Commerce for the registration area, comprising 87.6 per cent of the population of the United States, heart disease claimed 170,033 lives in 1923, as compared to 105,680 deaths caused by pneumonia and 90,732 by tuberculosis. Syphilis is credited with a toll of 15,811 deaths.



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Treatment of Arsphenamin Dermatitis, Mercurial Poisoning and Lead Intoxication

Charles C. Dennie and William L. McBride, Kansas City, Mo., (*Journal A.M.A.*, Dec. 27, 1924), have used sodium thiosulphate (ordinarily known as sodium hypsulphate) in the treatment of arsenical, mercurial, lead and bismuth poisoning with good result. It is a highly efficient and rapid neutralizing agent for these common metallic poisons. With this preparation available, it is possible to administer the maximum amount of treatment in syphilis with the assurance that, should metallic poisoning take place, it can be controlled. The authors' experience has demonstrated that the original dosage is most efficacious, and that the repeated administration of large doses at the onset shows no apparent advantage. When these metallic poisons have been given intravenously or intramuscularly, the sodium thiosulphate is given intravenously in not more than 20 c.c. of distilled water for each dose, every day for four days, and then every other day for as many doses as are necessary to complete the cure. The original dosage employed has been found to be the best, 0.3, 0.45, 0.6, 0.75, 0.9, 0.12 and 1.8 gm. When the metallic poison has been taken by the mouth, the stomach is washed out with 500 c.c. of water, to which has been added 30 gm. of sodium thiosulphate. A similar amount is then given by mouth and allowed to remain in the stomach. The same procedure as described above is then carried out. When mercuric chlorid is placed in the vagina, 5 per cent sodium thiosulphate douches should be used in order to neutralize any free mercury, and then hydrous wool fat ointment, to which 1 per cent sodium thiosulphate has been added, is applied.

—R— Pituitary Extract

There are a good many pituitary extracts on the market, scarcely two of them alike in activity and, consequently, dosage. In fact the same preparation may differ at different dates by as much as 50 per cent if improperly made, carelessly exposed to the light, or kept too long under even favorable conditions. Pituitary extracts should be dated, and the ampoules should be kept in their cartons till needed. It goes without

saying that the date stamped on the package should be consulted.

A pituitary product that has won an enviable reputation because, for one thing, it was the first in the field, and for another because the standard of activity applied to it is such as to make the average obstetric does $\frac{1}{4}$ to $\frac{1}{2}$ cc (4 to 8 minims), is Pituitrin, P. D. & Co. Pituitrin is tested, we are told, by two methods, to demonstrate, respectively, its effects on blood pressure and its effect on uterine tissue.

A new booklet on "Pituitary Therapy," covering not only pituitrin but preparations of the anterior lobe of the pituitary body, and of the whole gland substance, is offered to physicians by Parke, Davis & Co., Detroit, Michigan.

—R— American Congress of Internal Medicine Announcement

The Ninth Annual Clinical Session of the American Congress on Internal Medicine will be held in Washington, D. C., March 9-14, 1925.

Washington clinicians and investigators of attainment will devote the entire session to amphitheatre and group clinics, ward "rounds," laboratory conferences, lectures, demonstrations of special apparatus and methods, and the exhibition of unusual scientific collections. Civilian and governmental services are united in the aim to make the week useful and memorable.

Practitioners and laboratory workers interested in the progress of scientific, clinical and research medicine are invited to take advantage of the opportunities afforded by this session.

Address enquiries to the secretary-general.

WM. GERRY MORGAN, President.

Washington, D. C.

Frank Smithies, Secretary General, 1002 N. Dearborn street, Chicago, Ill.

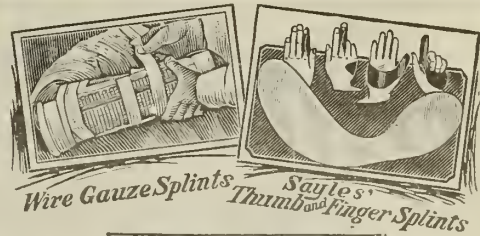
—R— Palpation Hematuria as a Test in Floating Kidney

After the patient has voided, Morris H. Kahn, New York (*Journal A.M.M.*, Nov. 29, 1924), palpates one or both kidneys, exerting only mild pressure during three inspirations of the patient. After a few minutes, the patient voids again for a comparable microscopic examination. In many cases of nephroptosis in which the kidney could be held down by the palpation hand for several inspirations, bleeding was produced by

palpation trauma. In a few cases, when only the lower part of the kidney was palpable, this was not possible. The kidneys are apparently sufficiently sensitive to direct pressure or palpation trauma that care should be taken not to induce microscopic hematuria. The urine should be examined before the physical examination is made, before the kidneys are palpated. A mistaken diagnosis of hematuria may result from neglect of this suggestion.

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Extra Renal Albuminuria

F. A. CARMICHAEL, M.D., Osawatomie, Ks.

Read at the meeting of The Norton-Decatur County Medical Society, Norton, Kan., January 8, 1925.

The presence of albumin in the urine has long been considered a criteria of renal function or dysfunction. Its presence was supposed to indicate a pathology related directly to the renal tissues. In later years its occurrence in relation to cardiac decompensation was assumed to indicate the strength of the postulation of the inseparability of the cardio-vasculo-renal syndrome. The occasional occurrence of albumin in cases where no definite or even remote implication of the renal tissues could be predicated, became a subject of comment by authors who, while noting its occurrence, were unable to assign a cause for its presence and if the phenomena persisted for any considerable time the conviction was strengthened that it must necessarily imply impairment of renal integrity.

Various names such as lordotic, intermittent, postural, cyclic, physiologic, essential and adolescent have been applied by different authors according to their particular bias or the age or other predisposing factor to which in the mind of the particular essayist it applied. Later all these were covered by a general classification—Orthostatic Albuminuria. The occurrence of albumin after undue exposure, cold baths, excessive mental strain, severe physical effort or the ingestion of foreign protein is frequently noted and we are forced to the conclusion that a primary and a secondary type of albuminuria may be accepted as obtaining, the primary associated with renal morbidity and regarded as definitely intra renal—the secondary being extra renal and in no way dependent upon renal pathology. This fact seems worthy of emphasis because of the empiric association of albumin with renal insufficiency. Particularly in the young, where the occurrence of albumin in the urine in larger or smaller amounts and over brief or extended periods is noted, should one use the greatest caution in diagnosis, that the kidney be not erroneously incriminated. During the gesta-

tional period the error of attributing too much importance to albumin in the urine as an indication of renal inadequacy is as common today as twenty years ago. The kidney of the pregnant female is frequently the seat of a passive congestion in the later months of pregnancy. Experimentally, it has been proven that an albuminuria may be produced by passive congestion of the renal parenchyma without impairment of the tissue. The development and perfection of tests of renal function have contributed largely to evaluate the significance or otherwise of albumin as a urinary constituent.

In the presence of functional renal adequacy as relates to nitrogen urea excretion, the occurrence of albumin in the urine is frequently traceable to such conditions as cardiac decompensation or the injection of foreign protein, arterial hypertension, etc. Its presence in the urine after the administration of neo salvarsan and other irritant poisons is a very common occurrence. The albuminuria of infancy is rather frequently encountered when the secretions are preserved for analysis. The albuminuria of adolescence is interesting because of the various postulations associated with it. At one time the accepted hypothesis was that the condition was the result of prostatic secretive activity incident to puberty. Later investigation proved not only that the condition was as frequent in females as in males but that the prostatic secretion was mucoid, not alubminous. The condition could logically be ascribed as due to the profound disturbance of metabolism incident to the rapid growing period and a readjustment to functional adaptations. It would seem that there is now little place in our present day terminology for the term "essential" albuminuria. It no longer serves as a verbal cloak for our ignorance of its underlying pathology.

The term orthostatic albuminuria in its strict application refers to that type of albuminuria occurring when the patient is in the erect posture but disappearing when he assumes the recumbent position. Not in-

frequently is it found that while albumin is present in larger amounts when the patient is on his feet and moving about it continues in lesser degree under the influence of rest and dietary regulations.

Frequently it has been found that correction of faulty postural defects favorably affected these cases which gave rise to the term "postural albuminuria."

In the so-called essential albuminuria, albumin in greater or less amount is constantly present in the urine. The theory of Post and Martin that neutralization of acidity of urine diminishes the albumin content or causes it to entirely disappear so long as the urine is kept alkaline or neutral, is based on the theory of Fisher that in vitro, a certain degree of acidity predisposes protoplasm to a state of colloidal dispersion setting free the protein content and influencing the renal tissues to greater permeability, thus permitting the filtration through them of blood constituents that are normally retained.

The theories of Fisher, however, are not generally accepted by clinicians or physiologists. The fact that albuminuria cannot be produced by any degree of urinary acidulation in vitro, short of bladder irritation, would seem to effectually controvert Fisher's hypotheses (spontaneous recoveries).

Any attempt at the present time to correlate the various forms of albuminuria with specific morbid processes other than nephritic seems extremely difficult yet the fact remains that we do have the occurrence of this condition without demonstrable functional impairment of the renal structures. However, in the light of our present limited knowledge of this phenomena some change must be assumed to have occurred in the renal tissue that has permitted the escape of constituents through an increased permeability of these that is normally retained, or in other words non filterable.

The questions that naturally present themselves are:

- (1) Why does albumin occur?
- (2) Is it always due to protein release?
- (3) May it be said that it is ever a part of the pathology of renal disease *par se* or is an expression of systemic or metabolic disorder incident to a peculiar retention toxemia?
- (4) What portion of the functional renal structure is involved—glomerula or convoluted tubules, and is it anatomic, i.e.—due to disarrangement of epithelium of these structures or

biochemical? Is it purely a mechanical or a complex chemical problem?

All these are of profound interest offering grounds for innumerable theories, but in the end we are forced to acknowledge our inability to reach any solution of the problem that may not be assailed from various angles of physiologic and anatomic teachings that are generally accepted at the present time.

Whatever the provocative causes of so called extra renal albuminuria it is evident that impairment of the osmotic function of the renal epithelium at some point must occur, except in such cases as ruptured varicosities of the bladder, papilloma or renal haematuria of other types occur, where the albumin present is merely the serum albumen of the urinary blood content. In other words it is not especially difficult to account for albuminuria of vascular origin from lesions occurring in or below the kidney in which blood is extravasated. On the other hand, where there is no evidence of impairment of renal function as evidenced by modern tests of efficiency, and where no lesion can be demonstrated in the lower urinary tract where albumin might occur from blood extravasation the problem of origin becomes extremely complicated.

The occurrence of albuminuria following operations on the turbinates and other minor operations of the upper respiratory passages has been frequently noted in the current literature of the past few years. This sometimes occurs in marked degree accompanied by edema but is usually transient. We take refuge in our old friend who has saved our face so many times and ascribe its occurrence to "reflex" causes.

Romorilli from a series of over 400 cases of obesity found albuminuria in 20 per cent where functional tests did not show renal deficiency.

Mandalbam comments on the occurrence of this phenomena in nervous and mental diseases without demonstrable renal implication, and its frequent determination in neurotic types has been the subject of wide discussion. In malignant conditions both sarcomatous and carcinomatous, it is noted with unusual frequency. The theory of Mandalbam is that the albumin found in the urine is not filtered from the blood stream, as dialytic experiments show that animal membrane arrests globulin much more readily than albumin, but that it is secreted by the renal epithelium under stimulation of some endocrine agency. This again is

in direct antagonism to present accepted physiologic teachings.

The entire review of the subject would be fruitless except to impress us with the fact that the presence of albuminuria does not predicate a renal lesion and that we can no longer say in every case where this is demonstrated that a nephritis exists or has existed, but must rely on tests of functional adequacy of the renal structures for confirmation or negation of their implication.

—R—

"Vacuum Headaches"

H. E. YAZEL, M.D., Kansas City, Mo.

Headache, like many other clinical symptoms, is so constant in both acute and chronic diseases, and is so broad a terminology, that it is worthy of extraordinary consideration. If properly classified it will lend a key to the diagnosis in other ways obscure maladies, thus becoming a subject that is to be more and more considered by present day diagnosticians and is highly interesting to the professional man who is called to the bedside in the homes and makes a hurried examination and is required to relieve the suffering of his patient and many times to immediately render a diagnosis. He is also required to treat chronic nervous individuals who are constantly complaining of diffuse headaches in which the symptoms are so vague that it appears impossible for him to be definite in classifying it.

The writer's purpose in this paper is to set forth the symptoms of vacuum headaches and call attention to the etiology, the diagnosis and some of the methods of relief in a manner that may be of some value.

Pratt, in his excellent work on intranasal surgery, says that vacuum headaches have been discussed since 1891 in literature by Ewing, Brawley, and Sluder. Sluder likewise, in his treatise of eye disorders of nasal origin, which was written in 1919, says that McBride discussed the subject in 1891. In the same works he quotes Ewing and Wright. G. Henry Mundt discussed it in a paper in March, 1922. C. A. Moore in May 1922, discussed it before the Missouri State Medical Association in his paper—"Headaches of Nasal Origin." But, in all there is comparatively little written relative to it, Sluder's article being by far the most exhaustive and comprehensive. The writer has treated some sixty-five cases in which thirty-one cases were operated with varying results.

By vacuum headaches, we mean headaches that are caused by the partial or com-

plete closure of the ostia opening into one or more of the paranasal sinuses. The frontals are the most constant offenders. The ethmoids, sphenoids, and maxillary antrums are next in order named. However I have never seen one caused by the antrum. The ostia being closed, the sinuses become air-tight chambers, or being only partly closed, retards circulation of air, which produces a negative pressure. Intranasal examination would reveal, in many instances, an apparently normal nose, but generally you will find some defects, such as narrow passages, deflected septa or hypertrophy of the covering of the hard tissues or of the turbinates, or hyperplasia of the bone and soft parts. After once established, a vacuum produces its own congestion, causes an engorgement of the soft tissues around the ostia, thereby maintaining a chronic, constant, or intermittent negative pressure. As the diagnostic ability becomes keener, one may be able to locate accurately the sinus or sinuses affected.

Familiarity with the anatomical details of the middle meatus is necessary for the comprehensive understanding of the frontal, maxillary and anterior ethmoidal involvement, while familiarity with the superior meatus is necessary to understand the posterior ethmoids and sphenoidal involvement. The exact anatomical description of the parts of the middle meatus, its paranasal cells, and their means of communication with it as well as the terms employed are so various that an effort to synonymize them would be difficult, if indeed possible. This arises, probably, from the fact that the various observers have each seen the parts differently, together with the difficulty anatomists have had in understanding the other's description. Sluder says that the Heymann-Ritter thesis on this subject is masterful and that they have systematized the question involved comprehensively and catalogued their variations.

The term, "Infundibulus" was first used by Boyer in 1803 to designate the funnel shaped upper part of the middle meatus leading into the frontal sinus, which in its simplest arrangement passes directly between the uncinate process in front, and the ethmoidal bulla behind. It is directed upward from the hiatus semilunaris and uncomplicated by pocketing cells or diverticula in any direction. Boyer's interpretation of the infundibulum was that it was an ethmoid cell. The funnel while in a parallel line is the hiatus semilunaris, and

as soon as it diverges it becomes the infundibulum. A construction put on it by Zukerkandl and Logan Turner, the lumen of the funnel is smooth lined, but may be varied by pocketing, or cells developing anteriorly, laterally, or superiorly and posteriorly from both the hiatus and infundibulum and by them becoming separated one from the other by an interposing cell. A theory held by Boyer, Sluder, and Heymann and Ritter, who have taken the position that simple smooth lined funnels do not exist and that the infundibulum and hiatus semilunaris are normally slightly disjointed. So, as a conclusion, we may say, at any rate, the infundibulum and hiatus semilunaris which forms the opening of the frontal sinus is tortuous in its course varied in its anatomical arrangement and easily obstructed. The ostium to the anterior ethmoid which is in the middle meatus is closely associated and many times appears in common with the hiatus and both may be obstructed by an enlarged tubinate, a deviated septum or hyperplasia of either.

The ostium to the antrum is in the lateral wall of the middle meatus and is directly through a very thin wall and difficult to close without considerable inflammation or deformity. However, it may be accomplished by a deflected septum, hypertrophied or hyperplasia of the turbinates. The ostium to the posterior ethmoidal labyrinth and to the sphenoid is in the superior meatus, opening directly through a thin wall, difficult to close and consequently not so frequently involved in vacuum headaches. It may be accomplished by deviated septa, hypertrophied superior turbinates, or hyperplasia of the surrounding tissues.

The subjective symptom may be classified as direct pain over the sinus area and reflected pain depending upon the nerve supply of the sinus involved. In frontal sinus involvement, the patient complains of pain in the frontal, temporal, mastoid and ocular region and sometimes basilar headaches. In antrum involvement, a general neuralgia of the side of the head and face, tenderness of the eyes and many times is confounded with the toothache. In cases of purulent antrum, I have seen several jaws stripped of teeth by dentists who were mistaken in their diagnosis. Involvement of any of the sinuses will be exaggerated by stooping with the head low, lifting or anything that will cause an engorgement of blood vessels in the head. Tapping or pressing over the antrums of frontals will bring

a sure complaint from the sufferer in even mild cases of involvement of these labyrinths.

Use of the eyes for near work will bring on ocular symptoms and the patient will often complain of their glasses, but proper refraction will not relieve the condition. The frequent reports of marvelous relief of pain and discomfort by a low grade astigmatic correction, were due to the spontaneous relief of the vacuum or other sinus conditions and not to the correction of the refraction. Pressure over the globe will elicit a complaint of pain which is deep seated in the orbital cavity and this, together with the aching caused from near work, is known as "Asthenopia," which in the writer's opinion is the most constant symptom of ethmoid and sphenoid involvement.

In frontal sinus headache, we have Ewing's sign which he has described as tenderness on pressure in the superior, mesial angle of the orbit. The pulley of the superior oblique muscle of the eye is attached to this portion of the orbital wall, and a part of this area of the orbit is made by the frontal sinus which is thinnest due to expansion and explains why the tenderness on pressure. Kuhnt observed that this was an exceedingly sensitive area and suggested that the tenderness was in the supratrochlear nerves, which were inflamed because of their close apposition. As a fact, however, it is in the bone at a point where the nerves are absent and should be remembered that Ewing put forth these signs as a diagnostic help for cases which had up to that time been declared not frontal sinus or nasal cases at all, because there were no nose symptoms, nor any pus or secretion from the sinuses, nor any of the grosser common place anatomic changes. The sign is sometimes the only indication of the nasal trouble and the rhinologist's findings are negative. The frontal sinus are more frequently the ones involved, because of the tortuous course of the infundibuli which drains them, and are more constant in exaggerated Ewing's sign. When the anterior ethmoid labyrinths are involved, then the symptoms are different and the tenderness is at the site of the lacrimal bone. Patients affected in this way have the feeling of sand in their eyes and asthenopia is present. The posterior ethmoids seldom, if ever, give rise to the Ewing's sign, but constantly elicit the pain of asthenopia, and pain is referred to the occipital, parietal or frontal, or headaches brought on by the use of the

eyes, because the recti muscles have their origin in the apex of the orbit from parts constructing the walls of these sinuses or may involve the optic nerve, causing partial or total blindness.

The diagnosis of vacuum headache cannot be made from subjective symptoms alone. In nasal examination, we must determine the pathology and as a matter of fact the sinuses themselves have little, if any, diseased condition that would warrant the symptoms they have caused, and in true vacuum headache, we only find congestion of the membrane of the sinuses and surrounding tissues. The pathology that causes the vacuum is in the adjacent anatomical structures and it is upon these that the diagnosis is made. A pledget of cotton saturated with equal parts of 10% cocaine and 1-1000 adrenalin chloride, placed over the ostium will, in most instances, shrink the soft parts and allow free circulation of air through and around the opening which will temporarily relieve the symptoms. This is the most valuable asset in diagnosis. The x-ray will reveal clear sinuses and in most instances they are large. The transillumination is valuable for the frontals and antrums.

The treatment obviously is one of removing the cause of the trouble. There are two general ways of procedure; one by local application of suitable drugs or by using the cautery, and the other is surgery. In most instances of hyperplasia or chronic hypertrophied membranes, the use of the argyrol pack, 15 or 20% solution, for about twenty to thirty minutes duration, repeated every two or three days, with suitable intervening treatment that may be used at home, as a weak Dobell's solution for a douche and a spray with an oil base containing camphor, menthol, and oil of pine needles or as may the judgment of the physician in charge, will often obtain very gratifying results. It is sometimes remarkable to see what may be accomplished by simple application of the astringents.

In this connection I should like to narrate a history and report a case that has been under my observation for the past seven years. In the early part of 1915, a man aged 51 years, an oil operator, applied to me with a congestion of the right eye. His history was that of being treated for eighteen months by different oculists, who seemed from his story to have been in variation in their diagnosis. Examination revealed asthenopia in exaggerated stage, partial occlusion of the right nostril from

hyperplasia of the middle turbinate, septum deviated to the right. By the use of a tampon of cocaine and adrenalin, we were able to obtain a fair view of the ostia of the anterior and posterior ethmoid cells. There was considerable hyperplasia of the tissue around them and the turbinates and septum were closely fitted over this area. Transillumination of the frontals and antrums showed them clear. There was no discharge from any of the ostia. Ocular examination was negative. I diagnosed a vacuum of the ethmoids and advised him that an operation would relieve him. At the same time I packed his nose with a 15% argyrol tampon which was left in place one-half hour. He left the office and returned in about three months. The eye in apparently the same condition as on the first examination. The patient said that it had not given him any trouble since the day following the first treatment, until the day before his return and wanted the same treatment that he had received previously, which was given him, but he stoutly refused to be operated upon and has returned to my office at irregular intervals for relief as it was necessary. Ordinarily it takes two or three treatments to give him temporary relief, which lasts until driving in the dust or taking cold or like cause which will bring on a recurrence.

The application of silver nitrate, 2% solution, over the hyperplastic area, repeated every second day for two or three weeks will relieve the vacuum. In cases of cystic turbinates or greatly hypertrophied tissues, the fine cautery point thrust deeply at the selected point will permanently shrink them and bring about permanent relief.

The most radical treatment, then, is the opening of the inlet, particularly of the frontal sinus and the anterior ethmoid, which is usually accompanied by removal of the anterior end of the middle turbinate. This method is freeing the inlet into the labyrinth of the ethmoid cells or exenterating the cell, completely making a free drainage into the frontal. It is my experience that this would invariably give complete relief where it could be demonstrated that the frontal and anterior ethmoidal labyrinths were closed.

In most instances a deflected septum is present or there is considerable thickening of the perichondrium and mucosa in the neighborhood of the ostia. Let me add that in 40% of submucous resections that I have done, I have found an inflammation of the

septal cartilage and perichondrium which I consider is a big factor in vacuum headaches.

In conclusion, I desire to impress upon the minds of the hearers, the frequency of headaches caused from paranasal sinuses and that often there is a vacuum which is extremely difficult, in many instances, to diagnose and many patent cases are told that their complaint is ocular in origin and they are fitted with glasses, when with a little care on the part of the physician he would be able to relieve his patient of this troublesome condition, which would be a great satisfaction to them both. Headaches should never be passed lightly and diagnosed without the cause is apparent, and then only after a thorough examination. The absence of pus and grosser nasal findings, as well as clear sinuses shown by transillumination and x-ray, does not exclude the sinuses.

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Importance and Care of the Perineal Orifices

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It is almost unbelievable that these stench orifices should be hidden from the examining eye of the physician, with such seclusion that the nerve waste should reach such proportions as to be nearly beyond repair before the individual will submit to an examination.

Will hygiene of the pelvis ever receive by the public its share of importance with hygiene of the other orifices?

It is of much greater importance, because the perineal orifices, through the sympathetic nervous system, not only dominate the form of respiration and the heart tone, but necessarily the oxygen supply, the capillary circulation and tissue metabolism, and also the moods, the fundamental impulses and purposes of all the activities of life itself.

No one today allows a tooth to decay beyond repair before going to a dentist, but rather has the teeth examined as a routine each month. Nor does he neglect to consult an oculist until an eye goes blind, or an aurist until deafness is established, or a throat specialist until a voice is destroyed. In all such cases the organic mischief has been of long standing, and all local repair work is summoned late, oft-times too late to be of practical value. Keep organs in repair and they will serve well as long as life in the body lasts and will tend to prolong life. One should always answer the first call of organs for attention. When the eyes

have to be rubbed, the ears poked, the nose picked or the throat cleared, or a tooth gets sore—these and other well known signs of organic disturbance which makes them self-conscious, are cries for help, and specialists in these various parts are needed. Repair work may yield adequate help in these early signs of trouble. Better still, of course, would have been in every case a sufficiently early inspection and care of the various organs to insure prevention of possible suffering and destruction. But repair summoned by the very first observable call for it, will do much to shorten suffering and contribute much to human comfort, health, happiness and longevity.

All these truisms are now pretty well entrenched in human belief and knowledge and are passing rapidly into the public mind, and false modesty has given way to sense and reason. However, it is but the beginning of greatly needed progress to maintain our health, equilibrium, prolong our lives and enjoy ourselves, and is an insurance against disease. This is all right—just as it should be so far as the upper part of the body is concerned. But what about the lower part—will we neglect it because it is easily hidden from public view, and we are too nice to be examined? Is this all-important region of human anatomy to remain everlastingly ignored? It, too, was created by the same Maker as the upper body, requires the same toilet care, demands removal of all irritation of mind and body, should remain well and strong; and more important still as it contains the organic structures that hold in their embrace the creative, digestive, building and repairing forces of all the bodily organs and tissues, as well as holding in their embrace the key to moods, motives of thinking, acting and hence becoming intelligent, scientific, successful. Pelvic thinkers are rather scarce, but large numbers of them are pretty sure to come into great demand just as soon as knowledge spreads and the world wakes up to its real and greatest needs. "The waste and repair of the sympathetic nerve" is bound to be the great slogan of the coming generation of healers. But the crying need for first class, competent pelvic operators is so very great it seems strange that the world sleeps on so long in ignorance of the fact, and does not wake up and come into the knowledge that only waits recognition to sweep on to its sorely needed preventive and repair work.

Neglect a sick eye, or an ear, or a tooth, and you may at the worst, lose an organ

and at the same time secure some general disturbance of its organic associates. But these upper organs are not sphincter-guarded by involuntary muscular fibres acting under sympathetic control. On the other hand, when the organs below the diaphragm become congested because of irritation at their outlets, and the supervening congestions induce over-functioning of related organs, to be followed by organic exhaustion and subsequent diseases of various kinds, the involuntary sphincters guarding these outlets acting under sympathetic nerve force, contract spasmodically and by their close nervous association with the middle coats of all the tubes of the body, seriously handicapped abdominal respiration and hence the oxygen supply of the body, the capillary circulation and the tissue metabolism generally; bodily efficiency becomes inadequate to mental and moral normal expression and general as well as all forms of local disaster has its turn for havoc until final and complete disaster supervenes to end the pitiful tale of neglect, in a premature death sentence.

The story from pelvic irritation to the premature grave is by way of defective children, immorality in schools, physical invalidism, acute and chronic disease, white slave trade, insanity and criminality with the terrible retributions. To spread as rapidly as possible the knowledge of orificial surgery and its methods of correcting sympathetic nerve waste and repairing its losses ought to be a matter of holy religion to every mortal who knows anything about anatomy, physiology and pathology. Orificial surgery is not theoretical, but eminently practical. Its basis and superstructures are facts—nothing but facts, anatomical and physiological facts, easily confirmed in all standard text books. It is nobody's opinion, theory, fad or hobby. It is sure to install changes in schools, colleges, text books and medical practice, but only such changes as are necessary to what is true and right, and all error has to be corrected sooner or later, does it not? The sooner the work of reformation is taken up, the better for everybody concerned, is it not? The work is well begun; let it be presented with increasing vigor until "The waste and repair of the Sympathetic Nerve" becomes an universal slogan, and the lower half of the body enjoys equal consideration with the upper half by the scientific explorers who have the health and harmony of the human being in their keeping. How long this is going to take—

who knows? In the meantime, the task of selecting, training and equipping orificial surgeons for expert orificial work should be strenuously kept up. The education of the public will soon settle the question of the importance of employing orificial or constructive surgery as a cure and a prophylactic of their various afflictions. Destructive surgery, or mere localized body-patchwork is good and will for long be needed, but conservative or orificial surgery will very soon, let us hope, make it less and less in demand. The unity of the human body suggests logically to all open-minded students, a careful study and consideration of the whole body, and the organs whose language is that of function must be studied with the same intelligent consideration as those that employ sensations as their vehicle of expression. Pelvic workers will at such time, come into their own—speed the day—and pelvic hygiene receive its merited recognition.

Orificial methods consist of the application of the orificial philosophy to the chronically sick. These methods may, or may not, be surgical. They may be devoid of suffering. They may, or may not, require anesthesia or cutting. They remove foreign growths. They are always constructive. They are never destructive. They restore to health and happiness the sick and discouraged.

They are based upon anatomical, physiological and clinical facts. They consist of a recognition, and removal of certain abnormalities at the openings of the body, especially the lower, with the reasonable expectation of a cure of such obscure diseases as are often considered incurable.

They have passed the experimental stage. Those who have practiced them, since the birth of orificial philosophy, thirty years ago, can speak with a degree of certainty as to causative factors of certain diseased conditions and their removal, that is not possible with the general therapeutic measures of the day.

These methods serve, with equal ease and surety, any practitioner who will diligently study and apply them; and they will solve for him the problem of his chronic sufferers. They are applicable to cases of home inharmonies, to the problematical child, to the "just sick" that no one understands, to sexual abnormalities, and to moral delinquencies.

They yield most gratifying results in all forms of chronic suffering.

Cases amenable to the beneficent result

of orificial principles are found all the way from the unmanageable child to the insane adult, from the foolish, hysterical girl, to the load-stone wife; from the slightest anemias to the pronounced tissue changes; from the merest neurasthenias to the violent insanities; from all forms of human suffering and disease, to health and happiness.

The human body is supplied with two great nervous systems, termed the cerebro-spinal, and the sympathetic. While these two systems have an independent function, they are nevertheless, in harmony one with the other. "Neither is one without the other." If one suffers, the other must suffer also; for this reason all points of nerve impingement should be recognized and removed.

All the orifices of the body must be exonerated from blame, before complete bodily harmony can be established and maintained.

The cerebro-spinal nerve system presides over all voluntary activities of the body, such as motion, sensation and will. It is largely under the control of the conscious mind, and it has periods of rest. During sleep, for instance, the brain is off guard; no thinking is done, no conscious act is performed. This nervous system then, which dominates our thoughts, our actions, our likes and dislikes, during our waking hours, is off duty during natural sleep and under narcotic and anesthetic influence.

The sympathetic nerve system presides over all involuntary activities of the body, such as digestion, circulation, assimilation, nutrition, emotions, etc. It presides over the vital functions of the body. It never sleeps while this earth life is at its post. It sleeps but once, and that sleep is final.

All those bodily activities, then, over which we have no conscious control, all the mighty processes which mean life, health and happiness, are under the control of the sympathetic nerve system.

If health is to be maintained, or lost health regained, this sympathetic nervous system must be free from irritations, impingements, and compressions so that it may impart and deliver freely the necessary force to every bodily need.

The great desideratum, therefore, in maintaining health, or combating disease, after it has obtained a foothold, is to free the sympathetic nerve from handicaps of all kinds, that vigorous activity of the life processes may proceed.

This is exactly what orificial methods

will do. They are called orificial, because they free the sympathetic, as well as the nerves of sensation, from trouble, where the greatest amount of irritation is found in nearly all, if not all, chronically diseased subjects.

Orificial methods, then remove irritation, compression, or impingement of terminal fibres of the sympathetic nerves, wherever located.

These irritations may be caused by hemorrhoids, pockets, papillae, fistulae, and perhaps more than all, contraction in the rectum.

In the pelvic openings, irritation to the terminal nerve fibres may arise from elongated, adhered or tight foreskin, or in the female subject (requiring circumcision), narrowed, fringed or hardened (atrophied) condition of the pelvic outlets, scar tissue from unrepaired lacerations resulting from unrecognized accidents or childbirth, and other causes.

Circumcision of the girl or woman, of any age, is as necessary as for the boy or man. If not performed when required, a girl's life cannot be normal. It often leads to all forms of abnormality. In her emotional nature, she may become a man-hater, or a man-chaser. Her affections are likely to become misplaced. She will not know her own heart, and often marries the wrong man as a result. This, in turn becomes a source of domestic infelicities, and misunderstandings in married life. In her physical nature, she may become a nervous, hysterical wreck, even to the degree of insanity. She may struggle against physical emotional irritation, until she gives up the struggle, and yields to destructive habits. The little girl may be punished for practicing self-abuse, when she needs circumcision to remove the constant irritation to sexual nerves. She may develop chorea, or simple malnutrition, and indifference to the common interests of life.

As the sympathetic nerve, however, speaks in the language of disturbed function, and not of pain or sensation of any kind, these conditions, at the terminals, may, and do, disturb and derange the function of any remote organ or tissue of the body—brain, liver, heart, stomach, kidneys, lungs—any part; and the person will often believe the special organ is diseased, when the real cause and root of the trouble is in the irritated terminals of the sympathetic nerve.

It has been noted that irritations of the lower terminals of the sympathetic, affect

the emotional, moral and religious side of man, more than do those of the upper terminals of orifices. The reason for this is explained by the fact that all creative power—mental, spiritual and physical—arises from the creative center. The creative system must be unhampered and capable of control and conservation if one is to have health of mind and body. At the organs of creation is found a most marvelous intermingling and distribution of the two nervous systems. From them arise also most intricate functions. The lower orifices of the body, therefore, the gateway to life, where new life is generated and where fibers of the sympathetic are abundant and accessible, are of first importance.

We are often admonished to use moral suasion for wild habits, sexual vices, immorality, drunkenness, etc. If one had an ingrowing toe nail, causing him to limp, the nail would have to be removed before the usual gait could be restored. Now, if one limps, mentally or morally, the cure should proceed along similar lines—the handicap to proper conduct should be removed.

Thus if one has an irritation of the sex center, driving him to vice and destruction, as is often the case, it would be the same way—remove the irritation, before using moral suasion, and thus put the person in condition to be able to give heed instead of being compelled, by physical condition, to turn a deaf ear to all high ideals. Thousands of noble lives have thus been saved from ruin. Millions more need this work.

Reflex pain and irritation are considered by some of our best men a myth. I believe that backache caused by pressure from a retroverted uterus is a mistake, but pain through the sympathetic nervous system, causing lumbar pain from a retroverted uterus or any pathology of itself or adnexa, I think absolutely possible.

False messages can be carried anywhere from any place by the sympathetic nervous system, whose nerve fibres are non-medulated, absolutely bare, if you please, much the same manner as a radio picks up one station after another. This never happens by the cerebro spinal medulated nerves. How many of you ever saw a patient with a malignant breast, who did not have an excess CO_2 in the blood and also a cervicitis either with or without laceration—out of 300 cases examined by Pratt all had endocervicitis with actual infection, granulation or thickened endometrium and hypertrophy of the interstitial substance of the

cervix—this happens with all together too frequent regularity to be a coincident. Goiter observers have repeatedly observed uterine, cervical or tube or ovary trouble of varying degrees always associated with goiters, the length of time being the important factor, sporadic and acute goiters being an example of a girl's first menstruation. In men Kocker observed chronic seminal visiculitis in all men with goiters, coming to his clinic for one year.

Example: A lady who had been examined and told she had a cystic adenomatous goiter, lacerated cervix and perineum, cystic left ovary with a retro displacement, went to Rochester, Minnesota, for an operation. The goiter was removed, four months later some more of the goiter was removed at the same institution; six months later one of Kansas City's good surgeons removed some more goiter, there being a rapid growth of the goiter substance. Eight months after her last operation, there was a return of the goiter on the left side, quite large. This was removed and while she was still in the hospital ten days after the lobectomy, the cervix was cauterized and repaired, perineum repaired, abdomen opened, ovary and tube on left removed, appendectomy, uterine suspensions. After the lobectomy, she responded very slowly, but after the abdominal and local operation, it was prompt and she came back with a snap and has remained well for two years. Surely, the local or pelvic trouble had a marked influence on her goiter, her general well-being, her vitality and her recuperative power. I am not, however, advocating pelvic operations as a cure for goiter, where there has been definite tissue changes in the goiter substance, but as a means of making a complete cure by attention to both conditions. A patient from Greely, Kan., who had an enormous goiter, had been treated by rest in bed, Lugol's solution and various treatments, but of no avail. The goiter being of the mixed variety, she had this trouble for three years, had lost weight and was the typical type of goiter patient.

When first seen, she was flowing profusely and had been passing large clots of blood; the examination disclosed a large myoma of the uterus as large as a grape-fruit. She was advised to have a hysterectomy as soon as she could be prepared; vaginal pack, rest in bed, and the hemorrhage gradually subsided. A super vaginal hysterectomy was performed with cauterization of cervix. Anesthetist reported patient in good condi-

tion so a perineorrhaphy hemorrhoidectomy and removal of several skin tags was done. Her recovery was excellent and in 48 hours one could plainly see the diminution in the size of the goiter, my attention being called to it by the nurse; at the end of two weeks, the goiter was reduced to one-half in size and has remained so for one year. Now the lady should have a lobectomy before secondary goiter symptoms manifest themselves and thus avoid making her recovery incomplete. Chronic arthritis deformans has and can very frequently be traced to the infected type of endocervicitis. There seems to be but one method of curing these chronic infected cervixes with chronic endometritis and a soft boggy uterus, namely, complete hysterectomy, and prompt relief from pain and great improvement follows this sort of procedure at once.

Just a step further into this problem of reflex nerve stimulus causing insanity. When a general surgeon invades the field of neurology he is absolutely taking his life in his own hands, and whatever happens to him, he is himself to blame. All neurologists pooh-poo the idea of surgery doing anything but harm to their mentally sick.

A lady, 33, looked strong and well and had been well until her last confinement which was three months before I saw her. This was her third confinement; they were all normal, her husband said, but very tedious and she suffered great pain; the first lasted 36 hours, second 19 hours and the last 7 hours and was the easiest one; but after this, she did not do well. She had no temperature before or after confinement and had none when I saw her. She left her bed on the 11th day; uterus was firm, but the family physician thought a little larger than usual—no hemorrhage and he said only a slight perineal tear and a protrusion of several hemorrhoids were the only thing observed that were abnormal, although she did not rest well and it was hard for her to get to sleep. From this stage of nervous exhaustion, she rapidly declined until she became violently insane, tried to kill herself and had obsessions that the Ku Klux Klan were after her and would kill her. Possibly a timely warning, as they were active in Oklahoma at that time. She was brought to a sanitarium in Kansas City, where she was treated by two of the best neurologists in the land.

She was in the hospital three months and was if anything, worse. A sister upon whom I had operated for appendicitis insisted on my seeing the lady. The neuro-

logists allowed me to see her. The three of us counseled. About six weeks later we took her to a local surgical hospital for operation. She was prepared and at the end of forty-eight hours was operated; uterus was normal in size but retroverted. The uterus was curetted, the tissue being so friable that the curet dropped through the uterus as though it was mush, cervix cauterized, actual cautery, uterus swabbed with iodine, and packed with alcohol gauze, cervix bi-lateral tear repaired; rectocele repaired, perineorrhaphy, circumcision and removal of two large dog ear labia.

Hemorrhoids removed and two pockets, sphincter very tight, incised a lower part down to sphincter muscles, all adhesions loosened and sphincter was then patent and pliable; sigmoidoscope inserted, patient stood on head and three quarts of hot saline allowed to run into the rectum and remain in bowel.

Abdomen was then opened, round ligaments brought back of uterus below greater curve of body to give a lifting effect of uterus. Right cystic ovary and both cystic tubes removed; wound caused by curet in uterus closed. A long adherent retrocecal appendix buried in wall of gut removed and abdomen closed in layers.

There was absolutely no shock following the operation; she slept well that night with two $\frac{1}{8}$ th gr. morphine, dissolved in 3cc. sat. sol. Epsom salts, took plenty of water, talked when awake incessantly; would swallow the safety pins from the abdominal binder if she could get them, but made no effort to get out of bed, being strapped by one foot and one hand. On the third day, she had a large bowel movement with much hard feces. Mineral oil by mouth, 2 oz. every three hours for 8 doses, high colon flushing brought hard dry feces and sand each day for two weeks. During this time she ate well, slept with 10 grains veronal occasionally. Her appetite increased without stimulation until she ate five times per day.

Her physical condition improved by leaps and bounds; she was up and walking in two weeks, had actually gained five pounds by scales in the two post operative weeks. Her mental condition some days was much improved and others she worried about various things. At times, she would read, converse, do fancy work and be perfectly rational and normal while at others she would talk and be obstreperous. She never tried to get away when up nor did she try to destroy herself by taking things after the

first two weeks. Her mentality remained about the same for the next two months and she was in charge of a very competent nurse at her home, having left the hospital on the 20th day. About three months after her operation, she was making good improvement, baked bread, went to the picture show, went swimming, visited and enjoyed her neighbors, and has continued to improve until nine months after operation, she is nearly well, having some moody spells at times. One great setback in her convalescence was caused by the death of her mother; this greatly perturbed her and we were very much afraid for her during that time. The husband says you can hardly see any difference in her now and before she was taken sick.

I do not advocate surgery as a cure for insanity but I do say and can substantiate the fact that people with these physical malformations and irritations will never recover until such corrections are properly made.

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HISTORY OF THE KANSAS MEDICAL SOCIETY

(Continued from March)

Dr. M. Bailey was elected president; Drs. Thomas and Linsey, vice-presidents; Dr. Stormont re-elected secretary; Dr. J. Parsons was elected assistant secretary; Dr. J. L. Prentiss re-elected treasurer.

The next annual meeting was held in Atchison on May 11, 1870. There were nine members present and ten new members were admitted. Dr. M. S. Thomas was elected president, Drs. Grimes and Jones, vice-presidents, and Dr. Brock, treasurer. Drs. Stormont and Parsons were re-elected secretary and assistant secretary respectively.

Perhaps the most definite move for higher qualification in the practice of medicine was made at this meeting. Although it was not carried to a successful issue it demonstrates the determined attitude of the men of that day. It was proposed that the State Society appoint an examining board, conduct examinations of those intending to practice medicine and issue licenses to successful candidates. This was in furtherance of a campaign sponsored by the American Medical Association. The gist of its purpose will be seen from the following extract taken from the resolutions introduced at the meeting of the American Medical Association in 1869 and signed by N. S. Davis, Paul F. Eve, E. S. Gaillard, E. Lee Jones and J. K. Bartlett:

"Resolved, That whatever is done to establish and maintain a just and fair standard of medical education throughout our whole country, must be done by the profession itself through its own voluntary organizations, in the same manner that it now establishes and enforces its code of ethics. The profession is as competent to declare, through its representatives to the national, state and local societies, what shall be the standard of attainments for those to be recognized and admitted into its ranks, and to establish the boards and agencies by which compliance with such standards shall be ascertained, as it is to declare what shall be the ethical rules governing the conduct of those already admitted.

"Resolved, That this association earnestly requests each State Medical Society to appoint annually one or more Boards of Examiners, composed of five thoroughly competent members, whose duty it shall be to meet at suitable times and places, for the examination of all persons, whether graduates of colleges or not, who propose to enter upon the practice of medicine in their respective states, except such as have been previously examined and licensed by a similar Board in some other state."

At this meeting of the Kansas Medical Society in Atchison resolutions were offered which embodied the resolutions submitted to the A. M. A. by Davis and others and further provided for the appointment of an examining board; and for the details of application, examination, licensing, etc.

The first question one thinks of asking now is, "How could they hope to compel the doctors to take these examinations?" And the answer to this is found in the resolution which follows: "Be It Further Resolved, That from and after the expiration of three months from this date, it shall be considered imperative upon all members of the profession in the State, to appear before the Board of Examiners for the purpose of undergoing examination and receiving the society license; provided, however, that those persons who are members of the Society at this date shall receive the license without passing an examination, upon the payment of the regular fee (\$—), should the Board of Examiners be satisfied with their qualifications, without the examination. Should any person now in the State, neglect or refuse to appear for examination within the next three months, or should any person hereafter coming into the State, for the purpose of practicing medicine, neglect or refuse to apply

and appear for examination within three months after he shall have become settled for business, such person shall be treated ethically, by all members of this Society and those holding its license, as an *irregular practitioner*; and as such, it shall be unlawful for any member of this Society, or one holding its license, to consult with or to recognize professionally in any way, such irregular practitioner. Upon proof of a willful violation of this law, the Board of Censors shall cause the name of a member to be stricken from the roll, and to revoke the license of any offending party holding it."

Had this plan been adopted and carried out by two-thirds of the state societies, it is not improbable that a comparatively high standard of medical education would have been maintained, considering that three years of medical study with eighteen months in a reputable medical college was to be made a prerequisite, and that graduates of medical colleges were not exempt from examination. It seems quite probable that had the Kansas Medical Society carried out this plan the practice of medicine would have been much better regulated than it was for the next thirty years. Had this plan been carried out by all the State Societies, and had these State Societies and the American Medical Association been reorganized on the plan of its present organization, it is not improbable that the practice of medicine would have been quite as well regulated as it has been for the past 54 years under the various state laws adopted for the purpose.

An informal vote showed that there were fifteen for, and five against the resolutions embodying this plan. But at the next meeting at which it was made a special order of business, the resolutions were lost by a "decided majority."

Although the argument for and against the resolutions are not recorded, it is not unlikely that the vote against them was largely determined by the fact that the legislature had passed a bill entitled "A Bill to Protect the People of Kansas From Empiricism, and to Elevate the Standing of the Medical Profession." This act was approved March 3, 1870.*

*A Bill to Protect the People of Kansas from Empiricism, and to Elevate the Standing of the Medical Profession.

Section 1. That it shall be unlawful for any person within the limit of the State of Kansas, who has not attended two full courses of instruction and graduated from some respectable school of medicine, either of the United States or of some foreign country, or who cannot produce a certificate of qualification from some state or county medical society, and is not a person of good moral character, to practice medicine in any of its departments for reward or compensation,

for any sick person within the State of Kansas: **Provided**, That in all cases, when any person has been continuously engaged in the practice of medicine for a period of ten years or more, he shall be considered to have complied with the provisions of this act, and that where persons have been in continuous practice of medicine for five years or more, shall be allowed two years in which to comply with such provisions.

Sec. 2. Any person living in the State of Kansas, or any person coming into said state, who shall practice or attempt to practice medicine in any of its departments, or perform or attempt to perform any surgical operation upon any person within the limits of said state in violation of section one of this act, shall, upon conviction thereof, be fined in not less than fifty nor more than one hundred dollars for such offense; and upon conviction for a second violation of this act shall in addition to the above fine, be imprisoned in the county jail of the county in which said offense shall have been committed for the term of thirty days; and in no case wherein this act shall have been violated shall any person so violating receive a compensation for services rendered: **Provided**, That nothing herein contained shall in any way be construed to apply to any person practicing dentistry.

Sec. 3. This act to take effect and be in force from and after its publication in the statute book. (Laws 1870, ch. 68.)

Approved March 3, 1870.

Nothing, perhaps, more clearly illustrates the conceit—or rather confidence in its future importance to the State—which these early promoters had in this new organization, than the following resolution which was adopted at the Atchison meeting:

"Resolved, That a committee of three be appointed by the chair to prepare a device for certificates of membership of the Kansas State Medical Society. These certificates shall be gotten up in elegant style, in size not less than ten by fifteen inches, to be printed on paper parchment, with blanks for the seal and signature of the president and secretary. The committee to report at the next annual meeting."

On June 7, 1871, the Society convened in Wyandotte. There were nine members present and ten new members were admitted. Two rather unusual cases were reported: "Dr. Woodward reported verbally a case of unconsciousness and loss of memory for several weeks after inhaling nitrous oxide," and "Dr. Grafton reported a case of misplaced stomach, it being above the diaphragm, and in the cavity of the thorax."

Many of the questions which have disturbed the equilibrium of the profession and particularly the organized profession in recent years were handled peremptorily in those times, as evidence the following resolutions adopted at the Wyandotte meeting:

"Whereas, The contract system is contrary to medical ethics.

"Resolved, That all contract physicians, as well as those bidding for practice at less rates than those established by a majority of regular graduates of the same locality, be classed as irregular practitioners.

"Resolved, That the interpretation of this Society, the design was in no wise to effect the usual contracts rendered necessary to secure efficient attendance on the poor of th city or county; nor the contracts necessary to meet deficiency of medical officers under certain circumstances of emergency in the army. But that any person who contracts to attend families by the year at a stipulated price, or who charges less than the established price determined by a majority of the regular physicians in his locality, is in clear violation of the above resolution, and should therefore be classed as irregular."

Also the following which was adopted after some debate:

"Whereas, We recognize the American Medical Association as the representative wisdom of our profession, and acknowledge our amenability to its decrees; and as it has declared in unequivocal language that certain acts on the part of members of the profession are irregular, and has declared its purpose in the following resolution offered by Dr. Collins, of Massachusetts, and adopted by the association:

"That the charge for medical examination for life insurance should not be less than five dollars.

"Resolved, That the provisions of the resolution, as adopted, are binding on each member of this society'."

Dr. D. C. Jones was elected president; Drs. Cochrane and Holderman, vice-presidents; Stormont, secretary; S. F. Neeely, assistant secretary; J. W. Brock, treasurer. Ten delegates were elected to the American Medical Association, four delegates to the Missouri Medical Society, and four to the Illinois Medical Society.

The next meeting was held in Leavenworth, April 9, 1872. There were twenty-seven members present and eight new members were admitted, including Miss Francena R. Porter, the first lady admitted to the Society's rolls.

Charges were preferred against two members of the Society (from Topeka) for "affiliating with a disreputable member of the profession, and giving their influence to a bogus medical college for the purpose of self advertisement, thereby violating the code of ethics." These two men were found guilty at the next annual meeting and they were expelled.

Dr. W. W. Cochrane was elected president; Drs. Weaver and Morris, vice-presidents; Stormont, secretary; Baldwin, assistant secretary; and Brock, treasurer.

Fort Scott was honored by the annual meeting in 1873 on April 29. There were but seven members present at roll call, but nineteen new members were admitted. No business of importance was transacted, except the trial and expulsion of two members against whom charges had been preferred at the last annual meeting, referred to above.

Dr. H. K. Kennedy, Topeka, was elected president; Drs. Redfield and Sinks, vice-presidents; Stormont, secretary; A. Newman, assistant secretary, and W. W. Cochrane, treasurer.

The most interesting feature of this meeting was a report by Dr. Kennedy of an epidemic of smallpox occurring in Shawnee county. This epidemic started with a man living in Wabaunsee county who became ill on his return from a trip to St. Louis. His illness was diagnosed as "bilious fever" by his attending physician—he had no eruption whatever. He died on the eleventh day of his illness. Ten days after his death a man who had nursed him became ill and went to Silver Lake and the next day a small pox eruption appeared. The cases multiplied until there had been 105 cases with twenty-six deaths in the county. There were four fatal cases in which no eruption appeared. Of the 105 cases sixty-five had been vaccinated and twenty-three revaccinated. Of the twenty-six fatal cases only five had been vaccinated and three out of the five revaccinated.

From this time on the meetings of the Society continued to grow in scientific interest and in importance to the profession. There were many more, if not better, papers presented at the meetings.

On May 20, 1874, the Society convened at Lawrence and there were twenty-one members present and fifteen new members were admitted. At this meeting a resolution was adopted which had a far reaching effect upon the membership of the organization. This resolution was as follows: "Resolved, That a member whose name has been dropped from the roll for non-payment of dues, as provided in Article IV, of Section 4 of the By-Laws, may be restored to membership either by paying up or by a new election."

From the reports submitted by the treasurer from year to year it was evident that the members were very careless about paying dues. This resolution was evidently an effort to induce the delinquents to reaffiliate with the Society, dues or no dues. The effect of this policy continued to have an

influence upon the membership as well as the condition of the treasury for the next twenty-five years. During this time the membership roll varied directly with the attendance upon the last meeting of the Society. Practically all dues were collected at the annual meeting and practically no one paid dues for the year in which he did not attend the annual meeting. Membership in the State Society was requisite to become a member of the A. M. A., but not for maintaining membership in that organization; so that many joined the State Society and after securing membership in the A. M. A. dropped their affiliation with the State Society except when they found it convenient, or to their interest, to attend one of the annual meetings.

There was no other business of importance transacted at this meeting in Lawrence. Dr. J. S. Redfield of Fort Scott was elected president; Drs. Sinks and Morris, vice-presidents; Dr. M. S. Thomas was elected assistant secretary. Dr. Stormont and Dr. Cochrane were re-elected secretary and treasurer, respectively.

The next meeting was held at Topeka, May 19, 1875. Dr. S. E. Sheldon delivered the address of welcome. From his remarks the following is quoted: "I would earnestly recommend that the Board of Censors be careful in their recommendations for membership, for our success and usefulness as a Society do not depend so much upon our numerical strength as upon the character and professional standing of its members."

This sentiment generally prevailed at that time and while it corresponded to the highest ideals in medicine it was logically fallacious and the history of organized medicine has so proven. Numerical strength is the first essential. With numerical strength influence grows. An organization which has numerical strength and influence attracts membership. When an organization is so strong in numbers and influence that men seek to join, it can then afford to be choice in its acceptance of candidates.

Our Society would not have grown from a membership of 300 to 1,600 during the past twenty years had the membership in our county units been strictly censored, but the organization has not suffered by that. More unethical practitioners have been reformed by membership in a county society than by exclusion from it.

There were twenty-three members present at this meeting and twenty new members admitted among them one whose name

appears as one of the incorporators of the Society.

During this session the members were honored in being permitted to call upon a Vice President of the United States as indicated by the following resolution: "Resolved, That this Society will pay their respects to the Hon. Henry Wilson, the Vice-President of the United States, at his rooms in this city, at 10 o'clock p. m., and that the secretary inform him of the contemplated visit."

A considerable number of interesting papers were read and discussed. Dr. Tiffin Sinks of Leavenworth was elected president; Drs. Roberts and Schenck, vice-presidents. The secretary, assistant secretary and treasurer were re-elected.

The next annual meeting (1876) was held in Leavenworth. There were thirty-one members present and seven new members were admitted. At this meeting seven physicians from Missouri were elected to honorary membership. This entitled them to all the privileges of the Society with the exception of voting and paying dues.

The custom inaugurated at this meeting, of electing the men from Missouri to honorary membership in the Society, continued for a good many years—continued in fact until some of the members conceived the idea that the honorary members occupied the best and the most places on the program.

At this meeting charges were preferred against a member from Shawnee county and on due investigation he was expelled.

A committee was appointed to draft a bill providing for the registration of births and deaths and endeavor to secure its passage by the legislature.

The advisability of fixing a permanent place of meeting for the Society had been suggested at one or two of the earlier meetings but in his annual address Dr. Sinks endeavored to impress the members with the importance of such a move in the following: "The question of the permanent location of our Society should receive our earnest and thoughtful consideration. The system of itinerancy which has obtained thus far in its history, is supposed to enlist a greater number of physicians in its service, and to scatter its influence over a large area of territory. On the other hand, it effectually precludes the possibility of the collection of a library and a museum. While it may scatter its benefits, it certainly dissipates its treasures. Before the age of steam locomotion, the mi-

gratory system was undoubtedly the best as well as the most equitable one; but now that numerous lines of railroad have so cheapened and shortened travel, I seriously question the propriety of maintaining the old system."

As will be shown later this plan was ultimately adopted, but after a few years the itinerant meetings were resumed.

Dr. H. S. Roberts of Manhattan was elected president; Drs. Schenck and Furlley, vice-presidents; Dr. Stormont and Dr. Cochrane were re-elected secretary and treasurer. Dr. Victor Biart was elected assistant secretary.

—R—

UNIVERSITY OF KANSAS CLINICS

Clinic of Hugh L. Dwyer, M.D.

Department of Pediatrics

CALCIUM CHLORIDE IN NEPHRITIS WITH EDEMA

Calcium chloride was used in Germany in 1918 for the treatment of "war nephritis." This application of calcium salts had its origin in some experimental work carried out nearly fifteen years ago in which it was found that the drug caused loss of water and a decrease in weight when added to infants' food.

I have had occasion to use this remedy in several cases of nephritis with edema with remarkable results in some cases, and with temporary improvement in others.

In the management of nephritis in children we are confronted by the proposition, whether to restrict water or give it freely. The limitation of salt and of protein, because these substances throw more work on the kidney, has seemed to rest on well established ground until recently, when this point is being disputed with reference to the kidney damage caused by protein. There is no doubt that in nephritis with edema there is a retention of sodium.

It is a good practice to limit the protein intake to 1.5 gm. per kilo body weight and to restrict salt, only insofar as no added salt is given on the food. For practical purposes the elimination of eggs, fish and all meat except chicken from a child's diet will suffice. The patient should be kept warm, even to the point of keeping the skin moist and the bowels moving once or twice daily by the use of magnesia, thereby insuring water loss.

The question of fluid intake next arises. We should be guided by the type of nephritis. If we are dealing with a case of short duration, in which the urine is bloody,

there are few or no casts, and no edema, we should give water freely. This is the type that Hill¹ designates "acute hemorrhagic nephritis." It often follows tonsillitis or scarlet fever and it is assumed the infection is still in the kidney, and large amounts of water are beneficial.

If we are dealing with a case of longer duration with oliguria, edema and a badly damaged kidney as indicated by a large amount of albumin and casts, it is obviously one in which the fluid should be restricted. For the first few days this can almost be restricted to equal the urine output, and later it may be necessary to allow more but not to exceed the urine output by 50 per cent.

The use of hot packs, diuretics and purgation have their place, but the many failures of these measures and frequent exacerbations these patients often have, make us welcome any drug that will favorably influence the scant urine output and edema.

Harold R., aged 11 years, was seen in January, 1924, complaining of edema of the legs and with a history of nephritis dating from an attack of scarlet fever in 1921. Edema of the whole body, with scanty urine containing albumin, casts and blood occurred six weeks after the scarlet fever. There were periods of headache, nausea and uremia, followed by periods of improvement, during the next two years. He was confined to the house nearly all of this time and most of the time in bed. Hot packs, saline cathartics and diuretics were employed freely. He improved to such an extent that he was able to walk outside a short time each day, and it was during one of these periods of improvement that he was referred to me.

An examination at that time revealed edema of the abdomen and legs, marked secondary anemia, mitral murmur and the urine showing a large amount of albumin, casts and blood.

He returned to his home, some distance from the city, with the usual instructions for the management of nephritis, such as low protein and salt free diet and medication to combat the anemia. For the next six or eight months, he made little improvement, and was admitted to the hospital September 10, 1924.

Phys. Exam. The skin was white and pasty, the cheeks were flushed, he was puffy under the eyes and dyspneic after a short walk. The heart was enlarged to the left 7 c.m. and to the right c.m. and a systolic murmur was heard at the apex.

The upper abdomen was enlarged, the liver was three fingers breadth below the costal border and his belt caused quite a pitting around the waist and his shoes a similar pitting in the legs. There was a suggestion of fluid wave, indicating free fluid within the abdomen. The systolic pressure was 130.

The laboratory reported as follows: Urine, sp. gr. 1.016; albumin, 3, (Esbach); many hyaline and granular casts, pus cells 4 and erythrocytes 30 per high-power field in an uncentrifuged specimen. Blood: Leucocytes 3,974 and erythrocytes 9,950 with hemoglobin 70 per cent. The blood chemistry showed chlorides 500, sugar 161, creatinin 1.4 urea 16.42 mgs. per 100 cc. and CO₂ 21.7 volume per cent.

To estimate the amount of kidney damage three function tests were made. The phthalein test is so variable in children that little information is obtained. Normal children show a two hour output of 65 to 95 per cent of the dye. Our patient showed 68 per cent on admission and 95 per cent on discharge. This in spite of the fact that his kidneys were badly damaged. The creatinine tolerance test developed by Dr. Ralph Major,² likewise does not indicate our patient's kidneys are functioning badly. In this test the creatinine is determined on the urine passed one hour before the injection of 0.25 gms. of this substance. Every hour after the injection the bladder is emptied promptly and completely. The excretion of creatinine for the first hour and second hour is compared with that before injection. In normal individuals there is an increase of two and often three times the creatinine, after injection. In chronic nephritis there is no such rise and there may be a fall. Our patient shows a rise of nearly three times the creatinin content the first hour after injection, thus indicating good function.

A most valuable test is the Mosenthal or one of its modifications. A half teaspoonful of salt and half an egg may be given at meal time and the sp. gr. of urine measured every two hours. This added protein and salt in a normal kidney will show in a rise of 8 or 10 points in the urine after the meal over that before the meal. This patient shows almost no variation in sp. gr., thus indicating little power to concentrate these solids, a lowered function.

The amount of albumin in the urine remained constant, in spite of the fact that there was a great clinical improvement.

Table II—Creatinine Tolerance Test

9-11-24	Sp. Gr.	Total	Creat.	Phthalein
Before injection	1.010	145 cc.	50.0 mgm.	42 pct.
1 hour after	1.005	365 cc.	140.5 mgm.	23 pct.
2 hours after	1.003	370 cc.	141.4 mgm.	3 pct.

Table III—Mosenthal Test

	Sp. Gr.	Total
7 p. m.—7 a. m.	1.015	400 c.c.
9 a. m.	1.016	500 c.c.
11 a. m.	1.016	40 c.c.
1 p. m.	1.016	40 c.c.
3 p. m.	1.014	65 c.c.
5 p. m.	1.015	80 c.c.
7 p. m.	1.016	50 c.c.

TREATMENT

He was put to bed and kept warm, on a diet protein low and with no added salt, with as little water as possible for his comfort, but never to exceed by 50 per cent his twenty-four hour output of urine. Calcium chloride was given in large doses, 6 gm. daily in simple syrup. Table I shows the effect on weight and urine output.

Table I

Date	Weight	Fluid Intake	Urine Volume
9-11-24	69 8-16 lbs.	690 cc.	705 cc.
9-12-24	68 10-16 lbs.	1520 cc.	1990 cc. Cal started
9-13-24	66 lbs.	980 cc.	1350 cc.
9-14-24	64 10-16 lbs.	1380 cc.	1700 cc.
9-15-24	65 lbs.	1620 cc.	1425 cc.
9-16-24		1120 cc.	820 cc.
9-17-24		1810 cc.	1070 cc.
9-18-24	65 1-16 lbs.	1680 cc.	1125 cc.
9-19-24		980 cc.	950 cc.
9-20-24		1030 cc.	650 cc.
9-21-24		1080 cc.	1000 cc.
9-22-24	66 lbs.		

The disappearance of the edema was rapid, in less than a week it had entirely disappeared. He felt greatly improved, the appetite increased and in ten days he was allowed out of bed. There was no decrease in the amount of albumin. On admission it was 2.5 gms. per 1000 cc. and after one week of treatment it was 3.5 gm. He was discharged from the hospital after three weeks, but remained in the city under observation, walking in the fresh air at longer intervals on succeeding days, and finally returned home with no return of the edema. Six months have passed and the child has had no recurrence of the edema, gradually gained in strength and entered school where he left off two years before.

The diuretic action of the calcium salts has been explained in several ways. It is believed by some that edema is due to sodium retention. When calcium chloride is taken, the calcium is eliminated by the

bowel as calcium carbonate, but the chlorin is taken up, becomes attached to the retained sodium, passed into the urine, thereby causing a loss of water.

Haldane³ explains the water loss, on the fact that calcium chloride being an acid salt, the chlorin is absorbed as hydrochloric acid producing acidosis. It is assumed that this acidity diminishes the osmotic pressure between the blood and tissue proteins, bringing them nearer the iso-electric point and this enables the tissues to give up the retained water.

Epstein⁴ has directed attention to the low plasma proteins of the blood in nephritis with edema. He attributes the edema to a fall in osmotic pressure of the plasma because of its low protein content. This low protein is not due to an increased plasma volume but to a decrease in the total amount of plasma protein in the body. The loss of large amounts of this protein, particularly albumin, in the urine and a disturbance in the mechanism of the production of the proteins is thought by Linder and his associates to bring about this decrease in plasma protein.

Haldane suggested a diuretic action similar to that of calcium chloride, would result from ammonium chloride. The ammonia is converted to urea, and the chlorin absorbed as hydrochloric acid, bring about acidosis and consequently, water loss.

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- 2 Major: Arch. Int. Med., 33:89 (Jan. 15) 1924.
- 3 Haldane: Jour. Phys., 55:265 (Aug.) 1921.
- 4 Epstein: Am.J.Med.Sc., 154:638 (Nov.) 1917; 163:167 (Feb.) 1922.

Clinic of Ralph H. Major, M.D.

Department of Internal Medicine

ACTINOMYCOSIS

The patient whom we have to show today is an example of a comparatively uncommon disease. She is a white woman, age thirty-one, married, and was admitted to the hospital complaining of abscesses of the leg.

The Family History is essentially negative. There is no history of any similar trouble in the family. The patient is married, her husband is living and well, and she has three healthy children.

Personal History: The patient has always been well and strong. Before the onset of the present illness, the patient weighed two hundred and four pounds. During the past year she has lost nearly

seventy pounds in weight. About eleven months before admission to the hospital she had an attack of severe pain in the right lower quadrant of the abdomen, which was diagnosed as acute appendicitis, but no operation was performed.

Present Illness: The patient has never been well since the attack diagnosed as appendicitis. Six months ago the patient had pain in the upper portion of the left thigh and a few days later a localized swelling appeared which was very painful. A physician was called, who opened it and obtained a considerable quantity of thick, foul smelling pus. A few days later the patient had an abscess in the left lower abdominal wall, which was also incised and drained. Since that time the patient has had frequent abscesses in the left thigh. Old abscesses have healed and new ones have formed.

The physical examination shows nothing very striking except the presence of several abscesses in the left hip, in the left inguinal region and in the back, with numerous scars of healed abscesses. The patient is poorly nourished. The skin and mucous membranes are somewhat pale.

The laboratory examination showed R. B. C. 2,700,000, W. B. C. 6,800, and hemoglobin 50 per cent. The urine had a specific gravity of 1.010, and was negative for albumin, sugar and casts. The bacteriological examination from the open abscess was very unsatisfactory. A great variety of organisms were seen in smears.

A few days later a fresh abscess, which was on the point of rupturing, was incised and a culture made from the pus. As the pus was escaping from the wound, it was noted that there were numerous very small whitish granules present in it. Several of these granules were mashed on a slide, examined under the microscope and typical colonies of the ray fungus were seen.

Cultures made of the pus were negative for bacteria but a few feebly growing colonies of actinomyces grew in anaerobic culture.

This microscopic examination established the diagnosis. This patient is suffering from actinomycosis, which is an uncommon disease in man, but fairly common in cattle. Inquiring further of this patient, the very interesting fact was brought out, that about six months before she became ill, one of her cows had lumpy-jaw and the patient held the cow's head while a veterinarian was administering treatment. This is a very interesting and highly suggestive history. Dr. J. H. Wright, one of the greatest

authorities on actinomycosis, states that a true instance of the transmission of this disease from animal to man has not been recorded. The evidence here is not conclusive that the patient contracted the disease from the cow, but it is at least very suggestive.

Actinomycosis is a very interesting disease from the bacteriological, pathological and clinical viewpoint. Whenever you encounter an abscess that is apparently sterile, it is well to think of the possibility of actinomycosis. While it most commonly produces abscesses of the skin, it is occasionally found in very unusual locations. Dr. F. C. Helwig, of the Department of Pathology, of the University of Kansas, has recently described a case of actinomycosis of the ovary, and states that thirty such instances are known in literature. Actinomycosis very commonly invades the intestines, sets up inflammation or abscesses, and may resemble acute appendicitis. It is quite probable that in this patient the condition began as an intestinal actinomycosis, since she had an attack simulating acute appendicitis and also had a definite abscess breaking through the abdominal wall.

The bacteriology of this condition has been very much clarified as a result of the work of Wright and others. At one time it was supposed that the actinomyces found very commonly on grass and grain and which could be cultured with great ease, was the cause of this condition. It now seems to be very well established that the actinomyces of grass and grain, which grow so readily, have nothing to do with the disease actinomycosis. The organism producing actinomycosis is an anaerobic organism, which grows very feebly and resembles the other actinomyces only in its microscopic appearance.

The treatment of actinomycosis is essentially surgical. In addition to this surgical treatment, the patient should be saturated with iodides and the general health maintained so far as possible. We plan to treat this patient along these lines. The mortality in actinomycosis is high. This high death rate is due largely to invasion of the vital organs by the disease, or to intercurrent infections.

LATER NOTE.—This patient was making very satisfactory progress, but she unfortunately developed a bronchopneumonia and died.

Observations of the Visualized Gallbladder by Graham Method

The observations made by Daniel N. Silverman and Leon J. Menville, New Orleans (*Journal A.M.A.*, Feb. 7, 1925), on the gallbladder in two cases were made on a physiologic basis, obviating all interferences with the gallbladder mechanism that must necessarily accompany anesthesia and operative procedure. The duodenobiliary drainage following a single stimulation with magnesium sulphate solution produces a reduction in size and alteration in shape of the gallbladder shadow when visualized by the Graham method. Plates taken at intervals up to twenty-four hours after injection of the dye, but without drainage, show no parallel diminution in size or alteration in shape of the shadow. Since non-surgical biliary drainage reduces the size and alters the shape of the gallbladder, we are led to conclude that drainage of the gallbladder does take place.

—R—

Duodenogram: New Method of Visualizing Entire Duodenal Contour

Jacob Buckstein, New York (*Journal A.M.A.*, Feb. 14, 1925), passed an intestinal tube just beyond the duodenojejunal junction. The distal 8 inches of this tube is perforated by numerous small openings. A suspension of barium is injected through the proximal end. When this suspension reaches the distal end, it escapes through all of the numerous perforances at practically the same time, and fills the entire duodenum in an unobstructed, isolated and homogeneous manner. This simple method obviates the necessity of employing any special apparatus or of producing unphysiologic distal obstruction, in filling the duodenal curve. The method is of value for a roentgen-ray study of the normal duodenal curve and of pathologic variations.

—R—

Skin Reaction With Gonococcus Filtrates (Toxin?)

Russell D. Herrold, Chicago (*Journal A.M.A.*, Jan. 31, 1925), has obtained a substance in the filtrates of broth cultures of gonococci that has given a skin reaction up to dilution of 1:100 when injected intracutaneously in the quantity of 0.1 c.c. in persons who have never had gonococcus infections, after the method of the Schick and Dick tests. It would seem from the results so far that this test may be of diagnostic value, and possibly also an aid in the control and development of methods of treatment.

THE JOURNAL

of the

Kansas Medical Society

W. E. McVEY, M.D. - - Editor

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THE ANNUAL MEETING

The fifty-ninth annual meeting of the Kansas Medical Society will be held in Topeka where it had its birth in eighteen hundred fifty-nine. There will be a three days' session and the outlook promises that it will be a record meeting. At least everything has been, or is being, done that should make it interesting, instructive and enjoyable.

There will be seven guests of honor who will address the Society during the three days. The American Medical Association will be represented by Dr. A. R. Mitchell of Lincoln, Nebraska, one of the trustees. Dr. H. M. Richter and Dr. Frank Smithies of Chicago, Dr. M. F. Engman of St. Louis, Dr. Curran Pope of Louisville, Dr. H. R. Allen of Indianapolis, and Dr. E. P. Sloan of Bloomington, Illinois, are on the program.

No member can afford to miss any part of this program, for besides the addresses by these men of national reputation, there are quite a number of excellent papers by members of our own Society.

The general sessions will be held in Representative Hall, which is large and comfortable and where everyone can be heard without the use of a "loud speaker." The

meetings of the House of Delegates and the meetings of the Council will be held in the Senate Chamber. The new and modern Hotel Kansan has been designated by the Committee of Arrangments as "Special Headquarters."

On Wednesday evening the members and visitors will be the guests of the Shawnee County Society at a smoker and entertainment, the special features of which have not yet been made known, but the committee promises that it will be plenty.

The ladies are to be entertained on Wednesday evening at the Chamber of Commerce. Every member is urged to bring his wife along.

The scientific program will be found on another page of this number.

NO NEW BUILDINGS AT ROSEDALE

The medical school at Rosedale failed to get an appropriation from the last legislature for any new buildings whatever. It is not improbable that no further appropriations will be made for the plant at Rosedale. The Chancellor of the University conveyed to the members of the Ways and Means Committees of the House and Senate that ultimately—probably within the next ten years—the medical school would have to be moved to Lawrence.

From various statements, of those in touch with the situation, and from all the information obtainable, it is not a question for the medical profession to decide, as one might have believed a few years ago when the new location was selected, but has been decided by Mr. Flexner of the Rockefeller Foundation, Dr. Colwell, Secretary of the Council on Medical Education of the American Medical Association, and Dr. Zapffe, secretary of the Association of American Medical Colleges.

Before the session of the legislature one was presumably safe in assuming that the school had been located permanently, because there had recently been no talk that suggested dissatisfaction with the present location, and because those men in the profession who had been most actively opposed to the original location of the School at

Rosedale have long ago submitted to what appeared to be the inevitable.

It was conceivable that the almost unanimous decision of the profession would not be entirely ignored, but something very important had been omitted in the evolution of that conception. The opinions, the desires, the efforts of the medical profession of Kansas are of no significance, as against the opinion of Mr. Flexner, who has behind him the millions of the Rockefeller Foundation. If Mr. Flexner says that none of these millions may be given to a divided school and that probably it would be better to unite our school at Lawrence, what else can we do but move it to Lawrence? It is perhaps unfortunate that so much money has already been expended by the state to establish the school at Rosedale, but it was certainly woeful lack of foresight in neglecting to secure Mr. Flexner's opinion before so much had been done.

The committees were assured by the Chancellor, however, that it would be perfectly alright to spend \$705,000 more at Rosedale for when the Rockefeller gift was received some provision would be made to take care of that. But the committees, apparently, did not see it that way. At any rate they did not recommend an appropriation for further extension of the plant at Rosedale.

One cannot say that such an appropriation would have been made under any circumstances, but any remote chance that it might must have vanished after the Chancellor had presented his analysis of the situation. The committees were made up of intelligent business men, obsessed with the idea of economy in the administration of the state's affairs. No one of them would be expected to, none of us would, vote for so large an appropriation for a building which we were told was to serve but a temporary purpose.

It is not fair to blame the Chancellor for giving the committees his honest opinions in regard to the removal of the school. He was asked by the chairman to do so. He was without doubt conscientiously stating

what he believed was the best policy for the Medical School. But to many of us it will seem that it was unfortunate for the Medical School that he held those convictions.

CHIPS

A pessimist is a person who when offered the choice between two evils takes both of them.

A doctor who is more familiar with disease than he is with health is like a ship at sea in a storm with a crippled rudder.

Several cities have put the ban on Jay walkers. It is a success and has lessened the accident and death rate. But -O- alone can put a quietus on the Jay thinker.

Typhoid fever is classed as an accident, by the supreme court of Illinois, and sustained a judgment of more than \$1,000 against an accident insurance company.

Drinking water containing the typhoid germ caused the disease, although it was not done intentionally and caused the sickness and hence was an accident.

To a layman this looks like a bad precedent and bad law.

It is claimed that there are two kinds of twins, viz: identical and fraternal. Identical twins, where they are exactly alike. Fraternal twins where they differ in appearance and action, the same as brothers and sisters born at different periods of time. Why are they not always identical is the scientific inquiry. Easy to answer by the pseudo-scientist. The identical twins are conceived by the two halves of the same cell. The fraternal twins are conceived by different cells. If this is not a satisfactory explanation to you, give us a better one.

A new source of insulin is the islet tissue of the codfish. It is claimed that "the fish tissue contains, weight for weight, ten times as much insulin as the animal tissues."

An antidote for alcohol, chloroform or other intoxication, is liberal doses of oxygen and carbon dioxide. This new combination of gases brings the sleeping drunk to immediate consciousness? The discovery was made by Drs. E. T. Hunter and S. G. Mudd of Boston.

Doble (Lancet, Feb. 7) writes that urine with a high acidic value is a very much commoner condition than is generally sup-

posed. Many people have it in a definitely pathological degree. This state is an indication of some underlying disease and is a grave menace to our well being. It prevents healing and acts as a poison to certain tissues. It is a factor in the etiology of a variety of skin diseases which respond readily to treatment with alkalis. Acne for instance is one of the commoner conditions mentioned. He refers to the hydrogen-ion concentration rather than the titrable acid content of the urine, which may not be abnormal.

One is unfortunate who is unable to remember and he is equally unfortunate who is unable to forget.

Spackman reported ten cases of delayed congenital syphilis (Jr. N. M. D. Nov. '24). Eight cases occurred in full grown soldiers whose ages were between nineteen and thirty-one years; two civilian patients were between seventeen and sixteen years of age. He says that syphilis hereditaria tarda is not a rare disease and should be diagnosed more frequently than it is in adult life. Aortitis or aneurysms may have a congenital origin and not be the result of acquired syphilis.

We have been informed that Evergreen Place Hospital, formerly owned and conducted by Dr. C. C. Goddard will be continued as before. Dr. McGee of Leavenworth will be in charge.

In spite of the vast amount of clinical material available for study, no one has yet reported findings of a sufficiently definite character to establish the etiology of cancer. Theories are numerous and varied, each based upon some fairly well established fact, but none of them seems to be tenable in the face of all the facts that are known. The bacteriologists have had their day in this field of investigation, the biochemists have started on theirs with a better outlook for definite results.

The occurrence of cancer in several members of the family might be considered evidence of heredity, but the assembly of a large number of cancer histories fails to confirm the theory either that cancer is hereditary or that it is transmissible.

J. D. M. Hamilton, Topeka, has been appointed attorney for the Defense Board to succeed Otis Hungate, who was recently appointed Judge of the District Court.

Dr. Richard L. Sutton, Professor of Der-

matology, has been made a Fellow of the Royal Society, Edinburg. Dr. Sutton was given the honorary degree of Doctor of Laws by the University of Missouri in 1922, and recently headed an African expedition under the auspices of the Department of Natural History of that institution.

Bennett and Dodds (Lancet Feb. 28, '25) report some interesting results from an inquiry into the effect of large doses of glucose by mouth.

Fifteen subjects were tested out with from 200 to 500 grams of commercial glucose. Ten subjects were given 200 grams of glucose and of these three showed a slight amount of sugar in the urine, the largest amount being 0.65 gram. Three were given 500 grams and only one of these showed sugar in the urine (0.16 gram).

The blood sugar was estimated in those subjects receiving 500 grams of glucose. Tests were made every half hour for two hours and another in four hours. The highest reading for the first half hour was 125 mg per 100 c.c. the others were 116 and 114. The highest reading at the two hour test was 100 and at the four hour test 90 mg per 100 c.c. The most marked effect noted was extreme sleepiness.

Typhoid Vaccine: The typhoid vaccine now in general use, is usually made from a type of organism of low virulence, properly sterilized by heat and containing preservatives, and is administered in doses of three injections, seven days apart. Immunity apparently appears about the end of the first week after the first or second injection. The blood serum of the vaccinated person has then acquired immunizing properties. These properties increase and may reach their maximum shortly after the third injection. It seems to be agreed that this immunity, once acquired, may last for several years; but there is no absolute certainty that a person immunized may not be subsequently infected during this period and typhoid fever produced. (Jour. A.M.A. Mar. 21, 1925, p. 916.)

Tryparsamide has some spirocheticidal activity and has an unusual power of therapeutic penetration, especially in the case of the central nervous system. This has led to its trial in certain cases of cerebrospinal syphilis. The value of the drug in these conditions, as compared with other methods of treatment, has not been conclusively determined. Tabetic affections have re-

sponded less satisfactorily, and patients with general paresis with advanced physical and mental deterioration have shown little or no improvement and the drug may hasten the progress of the disease in such cases. Its use is considered to be contraindicated in forms of syphilis other than that of the central nervous system. The worst of the properties of the drug is a tendency to produce amblyopia. Before using the drug, consideration should be given to the frequent production of visual injury. (Jr. A.M.A., Mar. 14, '25.)

DEATHS

Dr. William Morgan Martin, Wellington, died March 13th, after a long illness from paralysis. Dr. Martin was born in Ohio and came to Kansas in 1855. He graduated from the St. Louis College of Physicians and Surgeons in 1891 and practiced in Wellington since that time. He was a captain in the Medical Corps during the World war. He was Health Officer of Wellington at the time of his death. He was always an active member of the county and state societies.

Dr. Harry R. Shumard of Clay Center, aged 52, died March 10th from gun shot wounds, self inflicted. He was a graduate of Cincinnati College of Medicine and Surgery in 1902. He was licensed to practice in the state of Kansas in 1908 and located in Clay Center. He was a member of the Kansas Medical Society.

The American Board of Otolaryngology

The American Board of Otolaryngology will hold its first examination during the Meeting of the American Medical Association in Atlantic City, May 25th to 28th.

According to the rules of the Board, applicants are divided into three classes.

Class I. Those who have practiced Otolaryngology ten years or more.

Class II. Those who have practiced Otolaryngology five years and less than ten years.

Class III. Those who have practiced Otolaryngology less than five years.

The type of examination is different for each class.

The Secretary, Dr. H. W. Loeb, announces that thus far over three hundred applications have been made.

Medical School Notes

Landscape gardeners are now at work beautifying the Hospital grounds. A flower garden and numerous shrubs have been

planted between the two walks which form the approach to the main entrance. Other patches of flowers and shrubbery are being laid out around the Hospital and will improve the appearance considerably.

Drs. R. H. Major, R. L. Haden and T. G. Orr were initiated recently into the Kansas Chapter of the Sigma Xi Fraternity.

Dr. C. C. Nesselrode has been elected president of the Chamber of Commerce of Kansas City, Kansas.

Dr. Claude Dixon '21, now a fellow in surgery at the Mayo Clinic, visited the Medical School last week.

At the last monthly Sigma Xi meeting in Lawrence, Dr. H. H. Major read a paper on: Recent studies on Arterial Hypertension.

Dr. R. M. Urie, of Parsons and Dr. F. G. Schenck of Burlingame were recent visitors at the medical school.

Testing Patency of Fallopian Tubes

Robert Thrift Ferguson, Charlotte, N. C. (*Journal A.M.A.*, Jan. 31, 1925), has not had any untoward results in a single case in a series of thirty in which the patency of the fallopian tubes was tested by means of intra-uterine inflation. He uses an instrument that he devised. The advantage of the tubal patency test are numerous, but the most important one is in cases of sterility. Ferguson feels sure that no surgeon would be considered justifiable in doing any operation for sterility until the patency of the tubes had been established.

Hereditary Ankylosis of Proximal Phalangeal Joints

The family record in the case cited by D. C. Elkin, Atlanta, Ga. (*Journal A.M.A.*, Feb. 14, 1925), has been traced through five generations; but, owing to migration of individual members to many parts of the country, and the fact that no genealogical table has been kept, the record is exceeding meager. It is known by the patient that the trait has been carried through five generations; the first and second by male, the third and fourth by female ancestors. Men and women are equally affected, and both transmit the trait. In the author's case the proximal phalanges of the middle, ring and little fingers of both hands are ankylosed. The index fingers and thumbs are normal. The subject, a man, aged 25, has not been incapacitated in carrying out his work as a manual laborer. Except for some enlargement of the bones, there is no evidence of a proximal joint in the middle, ring and little finger of either hand.

SOCIETIES

NORTHWEST KANSAS MEDICAL SOCIETY

The annual meeting of the Northeast Kansas Medical Society was held at the Elks club at Leavenworth, Thursday afternoon, March 26.

The following program was presented:

"Studies on the Dick Test for Scarlet Fever," Dr. N. P. Sherwood, Lawrence.

"Osteitis Deformans," (case report) Dr. M. L. Bishoff, Topeka.

"Cesarean Section," Dr. E. A. Reeves, Kansas City.

"Extrauterine Pregnancy," Dr. C. E. Joss, Topeka.

"Resuscitation from Gas Poisoning," Dr. P. W. Darrah, Leavenworth.

After the schedule program Dr. H. R. Wahl of the University of Kansas Medical School presented a number of specimens of cancer and gave a very interesting talk on the subject.

Officers elected for 1925-1926 were:

President, Dr. Eugene P. Sisson, Lawrence.

Vice President, Dr. T. E. Horner, Atchison.

Secretary-Treasurer, Dr. Earl G. Brown, Topeka.

Following the meeting a dinner was given the visiting guests at the National Hotel, by the Leavenworth County Medical Society.

The society expressed their appreciation of the meeting and dinner, by giving the Leavenworth County Society a vote of thanks.

EARLE G. BROWN, M.D.,
Secretary-Treasurer.

GOLDEN BELT MEDICAL SOCIETY

The annual meeting of the Golden Belt Medical Society was held at the University club, Topeka, April 2nd.

The following program was presented:

"Factors in Diagnosis of Appendicitis and Influencing Better Results," Jabez N. Jackson, Kansas City, Mo.

"Syphilis and the Necessity for Its Control," Earle G. Brown, Topeka, Kan.

"Medical and Surgical Cases from Christ's Hospital," by member of staff.

"Medical and Surgical Cases from St. Francis Hospital," by member of staff.

"Medical and Surgical Cases from Stormont Hospital," by member of staff.

SUMNER COUNTY SOCIETY

The regular quarterly meeting of the Sumner County Medical Society was held

at the Park House, Wellington, Thursday evening, March 26th. There was a good attendance and each paper received generous discussion.

The following program was given:

"President's Address," Dr. A. R. Burgess, Peck.

"Laryngeal Neuroses," Dr. J. H. Dillon, Wellington.

"Pulmonary Gangrene or Pulmonary Infarct (Which?)," Dr. H. A. Mercer, Geuda Springs.

WILSON COUNTY SOCIETY

The Wilson County Medical Society held its February meeting at Neodesha, at the Brown hotel, Monday evening, February 16th. The guest of honor was Dr. T. Blakeslee of Neodesha, the oldest physician in the county in point of both age and practice. The Doctor graduated at the Rush Medical College in 1870 and wearing a silk hat and broadcloth suit, came into Altoona, March 31, 1870, on a load of flour. The land in this county was not surveyed until two years later. Dr. Blakeslee was a member of the first City Council of Neodesha in 1871. The Doctor stated that it was not unusual to ride horseback 60 miles in one day visiting patients. Quinine and calomel were staple drugs then as now. He showed great interest in the scientific paper read later. The Society presented him with a box of cigars, a present the Doctor greatly appreciated.

Dr. C. B. McClurg of Independence, Kan., read a paper on the uses of lactic acid in infant feeding. The paper was much enjoyed by those present and the Doctor was asked to submit a copy for publication in the Journal.

The Society held its March meeting at the Loether hotel in Fredonia, March 9th. A general discussion of scarlet fever antitoxin and the uses of toxin for immunization was the chief feature of this meeting. From all the latest it was the opinion that the matter is still much up in the air. The toxin put on the market by Lilly is made after the manner of Dorchez, while Dicks is something else. It is not generally conceded that Dicks have captured the specific germ. The Society voted that Dr. Young write a paper for our local press, giving the public exact facts as at present known regarding the use of hemolytic streptococcic antitoxin and toxin.

Adjourned to meet at Neodesha in April.
E. C. DUNCAN, Secretary.

PROGRAM

59th Annual Meeting, Kansas Medical Society, May 5, 6 and 7, Topeka, Kansas

TUESDAY, MAY 5TH, 8:30 A. M.

- "President's Address" *Dr. Alfred O'Donnell*, Ellsworth
- "Medical Studies of the Misbehaved" *Drs. C. F. and Karl Menninger*, Topeka
Discussion opened by Dr. Chas. S. Huffman, Columbus.
- "Modern Pathology in General Practice" . . . *Dr. H. R. Wahl*, Dean Medical School, Rosedale
Discussion opened by Dr. Thor Jager, Wichita.
- "The Physiotherapeutic Treatment of Colitis" *Dr. Curran Pope*, Louisville, Ky.
(Lantern slides.)
- "Kidney Function" *Dr. H. E. McCarthy*, Kansas City
Discussion opened by Dr. A. D. Gray, Topeka.
- "Correct Dose Measurements of Radiation to Malignancies and Other Tumors"—
Dr. Opie W. Swope, Wichita
Discussion opened by Dr. Marion Trueheart, Sterling.
- "The Present Status of Medical Education" *Dr. H. J. Duvall*, Hutchinson
Discussion opened by Dr. E. D. Ebright, Wichita.
- "Heredity" *Dr. B. F. Morgan*, Clay Center
Discussion opened by Dr. F. A. Carmichael, Osawatomie.
- "Medical, X-ray and Surgical Treatment of Goitre" . . . *Dr. E. P. Sloan*, Bloomington, Ill.
- "Use of Skin Tests in Medicine" *Dr. N. P. Sherwood*, Lawrence
Discussion opened by Dr. P. M. Krall, Kansas City, Kan.

WEDNESDAY, MAY 6TH, 8:30 A. M.

- "Vomiting of Pregnancy" *Dr. M. W. Hall*, Wichita
Discussion opened by Dr. E. A. Reeves, Kansas City.
- "Glucose in the Vomiting of Pregnancy" *Dr. W. H. Weidling*, Topeka
Discussion opened by Dr. J. D. Clark, Wichita.
- "Diagnosis of Gall Bladder Disease" *Dr. E. E. Morrison*, Great Bend
Discussion opened by Dr. J. A. Dillon, Larned.
- "Experiences With Spinal Anesthesia" *Dr. L. F. Barney*, Kansas City
Discussion opened by Dr. W. D. Storrs, Topeka.
- "Humoral Eruptions" *Dr. M. F. Engman*, St. Louis, Mo.
(Lantern slides.)
- "Practical Points in Intestinal Obstruction" *Dr. T. G. Orr*, Medical School, Rosedale
Discussion opened by Dr. D. W. Basham, Wichita.
- "Men and Medicine" *Dr. A. R. Mitchell*, Lincoln, Neb.
- "Medical Education" *Dr. E. H. Lindley*, Chancellor Kansas University, Lawrence
- "The Modern Conception of Peptic Ulcer With Report of Results of Treating
470 Cases by the Physiological Rest Method" *Dr. F. M. Smithies*, Chicago, Ill.
- "Diagnosis of Cardiac Arrhythmias" *Dr. W. R. Dillingham*, Salina
Discussion opened by Dr. F. E. Wrightman, Sabetha.

THURSDAY, MAY 7TH, 8:30 A. M.

- "Sinusitis in Children" *Dr. L. B. Spake*, Kansas City
Discussion opened by Dr. Geo. H. Litsinger, Topeka.
- "Iodine and Goitre" *Dr. H. N. Tihen*, Wichita
Discussion opened by Dr. C. A. McGuire, Topeka.

"The Control of the Complications in the Treatment of Syphilis"—

Dr. C. C. Dennie, Medical School, Rosedale

Discussion opened by Dr. R. W. Hissem, Wichita.

"Club Feet" *Dr. H. R. Allen, Indianapolis, Ind.*

"Some Observations Upon Artificial Pneumothorax" *Dr. R. G. Breuer, Norton*

Discussion opened by Dr. E. N. Martin, Clay Center.

"Diverticulitis of the Colon" *Dr. W. M. Mills, Topeka*

Discussion opened by Dr. M. G. Sloo, Topeka.

"Fractures" *Dr. A. R. Hatcher, Wellington*

Discussion opened by Dr. M. L. Bishoff, Topeka.

"Some Phases of Gastric Surgery" *Dr. H. M. Richter, Chicago, Ill.*

"Some Success and Failures in Obstetrics" *Dr. R. A. West, Wichita*

Discussion opened by Dr. Geo. R. Little, Wichita.

"Malignant Cystic Tumors" *Dr. Jno. L. Grove, Newton*

Ruminations

By THE PRODIGAL

Some time ago the Prodigal reported the trial of a man who had shot his wife to death on the streets of Los Angeles. His defense was insanity. Five criminologists testified, in the course of the trial, that he was sane and five equally eminent criminologists swore that he was insane. Three of the latter constitutes the board of alienists who have charge of the psychopathic ward of the Los Angeles County Hospital. The twelve jurors decided that the murderer was sane and the Judge sentenced him to the penitentiary. Through some technicality the murderer got a new trial and with the same result and he is now serving time. He has admitted that he was malingering.

The psycho-criminologist is a useful man. However, his intense study of the mental or psychic condition of man acquaints him with its abnormality or diseased condition better than with its normal functioning. As yet he is too metaphysical. The psycho-criminologist's long training of his mind "tends to throw it into a rhythmic form of perception by its monotonous stimulation." Hence the safety valve in getting at the facts of a man's sanity is to mix the evidence by the opinion of an up-to-date practicing physician and also a business man and the accused's neighbors.

The attention of the Judge and jury, in the trial mentioned, was called frequently to a young psycho-criminologist, who was not thoroughly dried behind his ears, and who seemingly knew more than the nine other alienists in the case, judged by his volubility and ego.

One of the jury women thought if this psychologist lived long enough he would be in a class with Ole Olsen's man, Senator Blank. In the county in which she lived back east, she said, there was a Swede township and Ole was the leader. As Ole voted the township voted. On election day, the political opponents to Senator Blank, whom Ole was supporting, thought to guy Ole for his opinion of Blank's greatness and said to Ole, "Do you think Blank is as big a man as Adam?"

Ole: "I never know Adam, but I tank Senator Blank be bigger man as Adam."

Questioner: "Well, do you think he is a bigger man than George Washington or Abraham Lincoln?"

Ole: "Vel, I tank I don't know dose man eider, but yas, I tank Senator Blank be a bigger man as eider your men."

Coming on down the line they finally asked, "Well, Ole, do you think the Senator is a bigger man than God?"

This was a poser, for Ole had his idea of God and hesitated, scratched his head and a new idea appeared to strike him. He brightened up and said, "Vel, Senator Blank, he purty big man, but—," said Ole, "he not very old man yit."

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BOOKS

Annual Reprint of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association for 1924. Cloth. Price, postpaid, \$1.00. Pp. 82. Chicago: American Medical Association, 1925.

This volume contains the reports of the Council on Pharmacy and Chemistry that have been adopted and authorized for publication during 1924. Some of these reports have appeared in *The Journal of the*

American Medical Association. Others are now published for the first time.

The annual volumes of the "Council Reports" may be looked on as the companion volumes to New and Nonofficial Remedies. While the latter contains the medicinal preparations that are found acceptable, the reports contain the reasons why certain products were not accepted. Thus the present volume contains reports on the following products which the Council denied admission to New and Nonofficial Remedies: Aolan; Aspatol; Atussin, Peptoproteasi, Paraganglina Vassale, Fosfoplasmina, Asmoganglina and Endo-Ovarina Tablets; Borosodine; Carsinol; Colodine and Colobromidine; Ferrasin; Glyeuthymenol; Hoyt's Gluten Flakes; Iodeol; Loefflund's Food Maltose; Mistura Creosote Comp. (Killgore's) and Tablets Cascara Comp. (Killgore's); Neo-Riodine; Nicomors; Peptone Solution for Hypodermatic Use (Armour); Pixalbol; "P-O-4"; Pollantin; Promonta; Pruritus Vaccine Treatment-Lederle (Montague Method); Restor-Vin; Some "Mixed" Vaccines of G. H. Sherman and Tersul Hiller.

The volume also contains reports on products which were included in former editions of New and Nonofficial Remedies but which will not appear in the 1925 edition because they were found ineligible for further recognition. Among these are polyvalent antipneumococcic serum, colon bacillus vaccine, gonococcus serum and gonococcus vaccine.

The volume contains a number of reports of a general nature: for instance a report on the therapeutic value of benzyl benzoate; a report on anaphylaxis produced by thromboplastic substances and a report on the therapeutic use of digitalis.

Physicians who keep fully informed in regard to the value of proprietary remedies will wish to own this book.

Genito-Urinary Diseases and Syphilis by Charles S. Hirsch, M. D., Urologist to the Jewish Hospital; Mt. Sinai Hospital, etc. Philadelphia. Fourth edition. Published by P. Blakiston Son & Co. Philadelphia. Price \$2.00.

This is a compend on genito-urinary diseases. A very concise description of the ordinary urinary examination is given. The methods of diagnosis and treatment of genito-urinary diseases are also discussed.

Therapeutics, a textbook by Hobart Amory Hare, M. D., Professor of Therapeutics, Materia Medica and Diagnosis, Jefferson Medical College, Philadelphia, etc. Nineteenth edition. Published by Lea and Febiger, Philadelphia and New York. Price \$7.00.

It is indeed an exceptional book that reaches a nineteenth edition, but Hare's *Therapeutics* is so popular, so well received by the profession that we reasonably hope to see many more editions. Numerous additions to the text, new remedies, new methods of administering old ones and new uses for them. The text has been brought quite up to date. Everyone is familiar with the scope of this textbook and it is needless to say more than that it has been thoroughly revised.

The Technic of Local Anesthesia, by Arthur E. Hertzler, A. M., M. D., Ph. D., LL. D., Professor of Surgery in the University of Kansas; Surgeon to the Halstead Hospital, etc. Third edition. Published by C. V. Mosby Co., St. Louis, Mo. Price \$5.50.

The author has presented in this book the technic which he has himself found most useful. In regard to the indications for local anesthesia, he says: "It is not a stunt to be performed as an athletic event, but it is to be selected only in so far as it is the best for the patient." The author has presented the difficulties likely to be encountered as well as the special technic. Each procedure is clearly detailed and illustrated with excellent drawings.

Pediatrics—Vol. IV of the Practical Medicine Series. Edited by Isaac A. Abt, M. D., with the collaboration of Johanna Hermann, M. D. Published by the Year Book Publishing Co., Chicago. Price \$2.00.

This volume is one of a series of eight year books, issued at various intervals during each year. They cover the entire field of recent medicine and surgery, and each volume is complete on the subject of which it treats for the year prior to the time of its publication.

The Physiology of Mind. An Interpretation Based on Biological, Morphological, Physical and Chemical Considerations. By Francis X. Dercum, M. D., Ph. D., Professor of Nervous and Mental Diseases in the Jefferson Medical College, Philadelphia. Second edition, Reset. 12mo of 287 pages. Philadelphia and London: W. B. Saunders Company, 1925. Cloth, \$3.50 net.

This in an intensely interesting discussion of a subject about which there have been more theories than facts to confuse the average student. The author thinks "all of the phenomena embraced in human experience, no matter what their character, must be approached from the standpoint of cold, unemotional, scientific observation and analysis." In this edition he explains the relationship of psychology to the physiology of the mind. "In any event, psychology can only be regarded as a department of brain physiology." An attempt has been

made to avoid technicalities so that the book may be understood by the lay reader.

Principles of Surgery for Nurses. By M. S. Woolf, M. A., B. Sc., M. R. C. S. (Eng.), L. R. C. P. (London), Instructor in Surgery, University of California Hospital, San Francisco. 12mo of 350 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1925. Cloth, \$3.00 net.

The author has endeavored to present a textbook for nurses that will more nearly meet their requirements than either a medical student's textbook or a book on technic. He discusses the principles upon which various procedures are based. He also emphasizes the causes of the more prominent surgical conditions, their characteristic aspects and the ways in which they are liable to progress. A summary at the end of each chapter adds to the convenience of the book for reference.

A Textbook of Physiology: for Medical Students and Physicians. By William H. Howell, Ph. D., M. D., Professor of Physiology in the School of Hygiene and Public Health, Johns Hopkins University, Baltimore. Ninth Edition, Thoroughly Revised. Octavo of 1069 pages, 308 illustrations. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, \$6.50.

Frequent revision of texts on physiology are made necessary by the constant advances in the fundamental sciences upon which it is based. Studies in biochemistry have revealed definite data which have determined the positive or negative value of many of the conclusions reached by physiologists. The author in this edition has endeavored to bring his work up to date and has added such material as recent advances have justified and has omitted matter that has become obsolete. The chapter on internal secretions has been rewritten as have several others.

Surgical Pathology. By Williams Boyd, M. D., M. R. C. P., Ed., F. R. S. C., Professor of Pathology, University of Manitoba; Pathologist to the Winnipeg General Hospital, Winnipeg, Canada. Octavo of 837 pages with 349 illustrations and 13 colored plates. Philadelphia and London: W. B. Saunders Company, 1925. Cloth, \$10.00 net.

The author presents the results of his own observations in the examination of surgical material and on the living pathology in the operating room. He has also attempted to present clinical features of most of the conditions so that the relationship between pathology and symptomatology can be demonstrated. The progress of pathological changes is so clearly described that it is a fascinating story to the reader. The book is well illustrated.

Child Health Library, a series of ten books giving the latest and most authoritative information

on every phase of child health. Edited by John C. Gebhart. Bound in flexible leather. Published by Robert K. Haas, Inc., 218 West 40th St., New York City.

These are handy little books that will be of considerable value to parents for they contain much useful information concerning children. The titles are as follows:

Pre-natal Care and the Baby's Birth, by Harbeck Halstead, M. D.

Babies—Their Feeding and Care, by Louis C. Schroeder, M. D.

The Neglected Age—The Child From Two to Six, by Bernard S. Denzer, M. D.

Dangers of the School Age, by M. Alice Asserson, M. D.

Communicable Diseases of Childhood, by Stafford McLean, M. D.

Hygiene of the Mouth and Teeth, by Thaddeus P. Hyatt, D. D. S.

What Children of Various Ages Should Eat, by Lucy H. Gillett, M. A.

How Children Ought to Grow, by John C. Gebhart.

Psychology of the Child; by David Mitchell, Ph. D.

Educational Problems, by David Mitchell, Ph. D.

The Medical Clinics of North America (Issued Serially, one number every month). Volume VIII, Number IV, (Mayo Clinic Number, January, 1925). Octavo of 374 pages with 66 illustrations. Per clinic year (July, 1924, to May, 1925). Paper, \$12.00; Cloth, \$16.00. Philadelphia and London: W. B. Saunders Company.

There are thirty-five contributions to this number of the Clinics. The first six of them concern the esophagus and the gastro intestinal tract. An article by Bumpus reports the results of the treatment of pyelonephritis with mercurochrome. Plummer gives a survey of the prevention and treatment of endemic goiter with iodine. Adams reports three cases of pernicious anemia and diabetes mellitus, and notes the apparent ineffectiveness of insulin in the presence of profound anemia. Conner presents a paper on the symptoms and diagnosis of nontuberculous pulmonary suppuration. Among the papers of especial practical value may be mentioned one by Randall on tubal inflation in sterility, one by Woltman on headaches and one by Parker on the clinical types of vertigo.

The Surgical Clinics of North America (Issued serially, one number every other month). Volume IV, Number VI (Clinic of Frank H. Lahey, M.D., Boston, Mass.) December, 1924; 166 pages with 43 illustrations, and complete index to Volume IV. Per Clinic year (February, 1924, to December, 1924). Paper, \$12.00; Cloth, \$16.00 net. Philadelphia and London: W. B. Saunders Company.

The contributors to this number are the

members of the Frank H. Lahey Clinic of Boston. The discussion of goiter, particularly its surgical treatment, is the text of the first several articles and they are especially interesting and instructive.

There are also reported several very interesting kidney cases—simple serous cysts of the kidney and non-calculous ureteral obstruction. Lahey also describes the treatment of common duct biliary fistulae by anastomosing them into the intestinal canal. An article by Jordan on functional disease of the colon differentiated from appendicitis and cholecystitis will be of considerable interest to the reader.

Operative Surgery, by J. Shelton Horsley, M. D., Attending Surgeon, St. Elizabeth's Hospital, Richmond, Va. With 666 original illustrations. Second edition. Published by C. V. Mosby Company, St. Louis. Price, \$12.50.

The most notable addition to this book is a chapter on the principles of operations for malignant growths with a section on the treatment of burns from radium and the roentgen ray. Many of the new operations are described in this edition, among them, Costain's lymphaticostomy for diffuse septic peritonitis, the operation of Stookey for innervating paralysed muscles, Finney's pylorotomy, Graham's pulmonary lobectomy and Cutler's valvotomy for mitral stenosis.

There are some very excellent illustrations.

Infection, Immunity and Inflammation, by Fraser B. Gurd, B. A., M. D., Lecturer on Applied Immunology and in Surgery, McGill University, Associate Surgeon Montreal General Hospital, etc. Published by C. V. Mosby Company, St. Louis. Price, \$5.00.

This work has to do particularly with the study of the phenomena of hypersensitivity and tolerance and their relationship to the clinical study, prophylaxis and treatment of disease. Bacteriology is not studied in this book from the viewpoint of differentiation of strains of micro-organisms, but a study is made of those characteristics of bacteria which determine their pathogenicity and their power to stimulate reactive phenomena on the part of the host. It is interesting.

Fractures and Dislocations, by Philip D. Wilson, A. B., M. D., Instructor in Orthopedic Surgery, Harvard Medical School; and William A. Cochran, M. D., Ch. B., University Tutor in Clinical Surgery, University of Edinburgh. Published by J. B. Lippincott Company, Philadelphia.

In view of the fact that the great majority of fractures and dislocations must be treated by general practitioners in the physician's office or the patient's home, and

that the people and the courts now require results such as are obtained in the best hospitals, the authors have tried to keep in mind the needs of the general practitioners. They have presented the results of their own experience and the methods which have proved of greatest value in dealing with the more common fractures and dislocations—methods that may be followed by the general practitioner.

The Crippled Hand and Arm, by Carl Beck, M. D. Published by J. B. Lippincott Company, Philadelphia.

Plastic surgery is very old, particularly plastic surgery of the nose, lips and ears. Up to the present time its purpose has been the reconstruction of form—cosmetic surgery. In recent years have been developed methods for the rehabilitation of function. This book deals with restoration of the crippled hand with particular regard to function. Some startling results are illustrated and the possibilities in the direction this sort of plastic surgery is taking justify the careful study of surgeons as well as general practitioners; and a consideration of these possibilities must influence the choice of treatment at the time of injury—when conservatism may mean much in the ultimate reconstruction work.

The Diagnosis of Children's Diseases, by Professor Dr. E. Feer, Director of the University Children's Clinic, Zurich, Switzerland; translated by Carl Ahendt Sherer, M. D. Published by J. B. Lippincott Co., Philadelphia.

The work is confined entirely to the diagnosis of the diseases of children, especially of the newly born and of infants. Professor Feer is recognized as one of the greatest authorities on pediatrics and he has had an unusually wide experience to aid him in presenting the most important points for diagnosis. Many points in diagnosis are mentioned that are not found elsewhere. This book should be of great service to the general practitioner as well as the specialist in pediatrics.

—R—

Medical Post-Graduate Courses in Summer Session, 1925

(The post-graduate courses offered in the Summer Session of 1925 in Kansas University School of Medicine, Kansas City, Kan.)

These courses are designed especially to meet the needs of the general practitioner who wishes to brush up in medicine and become acquainted in recent advances in medical science and to give him practical application in the modern clinical and la-

laboratory methods and the diagnosis and treatment of disease. Furthermore, it also offers an opportunity to become acquainted with the more recent technical procedures in the diagnosis and treatment of disease.

Three courses will be offered by the department of Medicine each given two mornings a week so that all three may be taken. One of these courses is that given by Dr. Russell L. Haden, who has charge of the clinical laboratory diagnosis and metabolic clinic of the University Hospital. This course will include practical work in blood chemistry, serology and basal metabolism. The value of blood, sugar tolerance test in diabetes, blood urea, creatinin and chloride determination in nephritis and intestinal obstruction and the significance of focal infections are some of the subjects that are scheduled in his course. In addition, ample opportunity will be given to acquire skill and experience in such elementary procedures as blood counting, examination of blood and sputum smears, gastric and duodenal analysis, urinary examination and bacteriological methods, Schick's test for bacteria, etc. The work will be arranged where possible to fulfill the needs of the individual physician without requiring him to stay the entire four weeks if he is not able to remain the entire course.

On two mornings of the week, medical classes will be devoted to a series of bedside clinic and ward walks by Dr. Peter T. Bohan, Professor of Clinical Medicine. This will include the demonstration and examination of patients with a thorough discussion of the differential diagnosis and therapy supplemented by flourescopic and x-ray findings, Wassermann test, metabolism studies, blood chemistry, etc.

For the remaining two mornings of the week clinical courses will be given by Dr. Ralph H. Major, Professor of Medicine. In this course special stress will be placed upon physical diagnosis. Patients will be assigned to members of the class who will make their own physical examination followed by general discussion of the case. Newer methods of treating diabetes, including the use of insulin will be taken up and illustrated with cases treated in this hospital. A constant effort will be made to show how an accurate diagnosis and successful treatment may be made in all cases with such equipment as is found in the average practitioner's office.

These clinical courses will be given from 10 to 12 each morning. The department of Pathology will give courses in autopsy

technique, tissue diagnosis and functional pathology from 8 to 10 each morning. This work is given by Dr. H. R. Wahl, Professor of Pathology. The work given at this period is of the nature of a clinic in which tissues taken at autopsy are used as a basis of the discussion rather than a living patient. A careful account of the clinical picture is first given in order to correlate the clinical findings with the pathologic material present. When an autopsy is performed a conference will be held with the clinical men in order to compare the findings of the clinics with those of the post mortem room. Considerable time will be devoted to discussion of pathological physiology illustrated with museum and fresh autopsy material. While this course is not especially designed for the general practitioner, in former years most of the physicians have elected it and have found it very instructive. While the above four members of the staff have planned courses especially for post-graduate physicians all students enrolling in the summer session will be welcome and given instruction in clinics given by other members of the staff such as Orr, Francisco, Davis, Skoog, Sudler, Ockerblad, Hertzler, Guffey, Irland, Dennie, Clendenning, Black, etc. Most of these are clinics and specialties such as gynecology, obstetrics, pediatrics, neurology, genito-urinary, dermatology given between 1 and 4 in the afternoon and can be attended without conflicting with the medical clinics in the morning.

The only fee required is the regular summer session fee of the University which amounts to \$10.00. The session will begin June — and lasts four weeks, ending on July — except the course in Pathology which will end two weeks later or July —. While attendance throughout the four weeks' course is most desirable, enrollment for a shorter period should prove profitable. For further information address the Dean of the Medical School, Kansas City, Kan.

Conference Expresses New Viewpoint on the Treatment of Syphilis

The indiscriminate use of the word "cure" in the treatment of syphilis should be discontinued and in its stead the patient should be made to think merely of an arrested condition as in tuberculosis. According to a report just made public, such is the opinion expressed by the conference of the United States Public Health Service and State venereal disease control officers

last December at Hot Springs, Ark. This conference advised that persons undergoing treatment for syphilis should expect and seek observational control at appropriate intervals, and under proper medical care, throughout a period of years—instead of considering themselves cured after a few months' or a years' treatment—in order to avoid the late involvement of the heart, blood vessels and nervous systems. The adoption of this attitude by the conference is disclosed by the report of the Hot Springs meeting which has just been published in pamphlet form by the Division of Venereal Diseases of the United States Public Health Service.

According to the printed report, the conference passed resolutions concerning the policy, management, methods and standards of examination, diagnosis and treatment to be followed by clinics supported in whole or in part by Federal or State funds. The report says that medical responsibility for the health of a patient who has acquired syphilis or gonorrhea is not discharged by mere routine treatment during the infectious stage, but extends to the prevention of crippling, degenerative lesions during the patient's later life. One of the first essentials to such prevention is complete observational control with periodic re-examination. It is urged that such systematic checking must be carried out through a period of years. Such a course is necessary, says the report, because a complete relapse of a patient treated for syphilis may occur in any case, however apparently hopeful at the start.

Among other things, the conference found that three years may be prescribed as the average period of treatment for the early case of syphilis before it is placed on observation. Five years has been widely accepted as the lapse of time required to reduce the infectious possibilities to a point where marriage may be contemplated.

—R—

A New Silver Colloid

A preparation of silver iodide that is not affected by light—does not leave a dark stain as its solutions dry on the skin or the clothing—is something of a scientific achievement. A preparation of this kind, which the manufacturers call Neo-Silvol, is said to be equal to carbolic acid as a germicide, and in its effect upon certain pathogenic bacteria very much superior, while in therapeutic dilutions it has no escharotic effect—does not even irritate inflamed mucous membrane.

In these days of many silver salts this one seems to be particularly worthy of attention, and samples for trial are offered to interested physicians by the manufacturers, Parke, Davis & Co., Detroit, Mich.

—R—

District of Columbia Gets Disease Control Law

After five years of legislative history the venereal disease control bill for the District of Columbia was signed by the President on February 26. In spite of the fact that the bill has been on the verge of enactment at several times in the past, it did not become law until the closing days of the last session of the 68th Congress, although every state in the Union has had some sort of a venereal disease control measure since 1921. The fact that sentiment for the Gilbert Bill persisted for so long a time in the face of repeated legislative delays goes to show that the need for such a measure was keenly felt by residents of the District.

Under the provisions of the law, the chief officer of every hospital, dispensary, sanatorium and penal institution must report to the health department cases of venereal diseases as soon as they are discovered. The judges of the juvenile and criminal courts must report any persons appearing before them who are suspected of being venereally infected. Private physicians are required to make a similar report within ten days after a case has come under their control. The District law provides that these reports be kept confidential by the health officer and his agents. According to the Division of Venereal Diseases of the United States Public Health Service, all of the states now have regulations requiring such reporting of cases of venereal disease.

In common with the regulations of thirty-five states, the District act provides that prostitutes, keepers of disorderly houses and persons convicted of any sexual crime are presumed to be a source of infection and are subject to examination. The health officer is required to employ for the protection of public health all such regulatory measures as may be necessary to prevent the spread of these diseases. He is also required to use every available means to ascertain the existence of venereal disease and the source of the infection. Persons against whom there is no criminal charge, but who are reasonably suspected of being infected, may be examined by the health officer upon consent of the parties. If, however, such persons withhold consent, an examination may be ordered by the court.

A violation of such an order by continued refusal is punishable as contempt of court. In forty-three of the states the health officer is given express power to quarantine persons known to be infected with venereal disease. Nine of these states go even further, allowing the officer to placard the premises under certain conditions.

Twenty-nine states have laws which prohibit the advertising of preparations for the treatment of venereal diseases in lay publications, or which prevent the sale of such medicine to a lay person except on the prescription of a licensed physician. A like clause exists in the District law. Nineteen states have found it advisable to regulate the employment of the venereally diseased, and in the District of Columbia the law prohibits persons suffering from venereal disease, in a form likely to be a source of infection to others, from being employed as barbers, masseurs, cooks, bakers or other producers or handlers of food or drink, or from working in any other occupation in which the disease might endanger the public health.

Under the new law, it is compulsory upon physicians to advise their patients as to measures which they should take to prevent the spread of these diseases. They are also required to report all of the indigent cases which may come to their notice. The board of health is under obligation to take care of such cases and to see that they are given the proper treatment according to approved standards. Practically all of the states have some way of taking care of such indigent cases.

Four Recovered Lepers Discharged From National Leprosarium

Four lepers who went to U. S. Marine Hospital No. 66, Carville, Louisiana, the National Home for Lepers, a few years ago, have been discharged, according to a statement made today by Surgeon General Hugh S. Cumming of the United States Public Health Service. They are no longer a menace to the public health, the disease having been cured, or, according to official parlance, "arrested." The conditions under which lepers are released from this institution are exceedingly rigid. They require special observation for a period of one year, including monthly bacteriological examinations to show that the leprosy bacillus is absent from the tissues. Certification of cure is also required from a board of three medical officers stationed at the hospital and experienced in leprosy.

The treatment at Carville includes the use of chaulmoogra oil, special preparations of mercury used intravenously, x-ray therapy, surgery of superficial areas of involvement, hydro-therapy, and the violet ray. The results of treatment have been sufficiently encouraging at this institution to induce numerous other patients, of whom there are believed to be several hundred in the United States, to agree to their transfer. A special car fitted up for the purpose, and carrying a doctor and a nurse was used in the transfer last week of eleven patients from Florida, and seven were brought from California. There are at present 236 leper patients at Carville.

Progress Made in Control of Cancer

Dr. Howard Canning Taylor, No. 20 West 53d Street, Professor of Clinical Gynecology at the College of Physicians and Surgeons, and President of the American Gynecological Society, was elected Preside of the American Society for the Control of Cancer at the annual meeting of the Society held in its rooms, No. 370 Seventh Avenue, March 7, 1925. Dr. Taylor who has been the Society's Vice President and Chairman of its Executive Committee, succeeds Dr. Charles A. Powers, deceased. Thomas M. Debevoise was re-elected Secretary and Calvert Brewer was again elected Treasurer. Dr. Francis Carter Wood was elected Vice President.

In the annual report of Dr. George A. Soper, managing director, evidence was presented to show that the efforts of the Society to acquaint the public with the early symptoms of cancer in order that those who were affected may receive speedy treatment had borne fruit throughout the country.

The latest report of the Pennsylvania Cancer Commission showed that in Pennsylvania from 1910 to 1923, the average time between the first symptoms and operation in superficial cancer cases had dropped from 18 months to 14.6 months, and that the average time between which a patient consulted a physician and was operated on dropped from 13 months to 4.5 months. Where deep cancers were concerned, the results were even more striking. Twelve years of educational work had cut down the average time between the discovery of the first symptoms of superficial cancer and the first call on the doctor 20 per cent, and reduced the interval between the patient's first appearance at the doctor's and the beginning of medical treatment 65 per

cent in superficial cancer and 70 per cent in deep-seated cancer.

Reports from the 53 state chairmen of the American Society had shown that in each state cases were coming earlier to physicians and consequently with a better prospect of cure. Specific instances could be quoted of lives saved through the Society's work.

The Society's efforts for the year had included systematic work among the public, members of the medical profession, nurses, dentists and students at medical colleges. The Society's publications had all been revised to contain the latest information. Exhibits had been made at many notable meetings of professional men and women.

With reference to clinics, the cornerstone of a permanent institution had been laid in connection with the Medical School of the University of Minnesota, the funds having been provided by Mrs. George Chase Christian, a member of one of the Society's committees. A temporary clinic had been successfully operated at Fall River, Massachusetts, under the direction of Dr. E. P. Truesdale of that city, aided by Dr. Francis Carter Wood.

In co-operation with the Connecticut Medical Society, the Connecticut Public Health Association and the Connecticut State Department of Health, the Society had begun a three years' campaign in Connecticut during which it will turn to account the experience it has gained elsewhere in cancer control.

The Director's report showed that inquiries for information have greatly increased during the twelve months. They included letters from physicians of England, Spain, Cuba and Italy who wished information to guide them in the conduct of campaigns for the control of cancer in their countries.

Dr. Soper recommended that during the coming year work be continued along present lines and broadened in some directions; that "cancer weeks" be generally held; that further efforts be made to enlist the co-operation of dentists, nurses and social workers; that the work undertaken in Connecticut be extended to other states, and that the Pennsylvania Survey be duplicated elsewhere in the country.

—R—

Gorgas Memorial Institute

The Gorgas Memorial Institute seems to be accomplishing its initial purpose of uniting laymen and doctors, and instilling

into the masses a recognition of the fact that scientific medicine is the only proper authority in health matters.

The Gorgas Memorial Institution evidences a healthy growth from the Atlantic to the Pacific. The value of periodic health examinations is a subject that the foundation is stressing in hundreds of newspaper articles, in public talks and in radio addresses, the country over.

Scores of editorials have been written and published by leading newspapers. Without exception they have deep sympathy with the ideals of the organization and heartily endorse it.

A special article written by the Detroit Saturday Night and appearing in the issue of February 14, is pertinent. It reads in part:

"Quacks and quackery in the field of medicine and general health protection will receive a heavy blow when the Gorgas Memorial Institute, recently founded in honor of the great army medical man who showed the world that yellow fever and other pestilences could be conquered by preventive methods, gets functioning."

"The Institute is not heralding as one of its purposes the counteracting of propaganda such as is spread by Bernard Macfadden and others of his kind who use every opportunity to attack the medical profession, but just so far as its plans, as announced, are successful, it will help to overcome pernicious teachings and ignorance regarding health."

The article goes on to say:

"The Institute will carry out General Gorgas' ideas of the exercise of preventive measures and the use of scientific medicine to check disease and wipe out pestilence. It is estimated that modern ideas of sanitation, coupled with the principle of periodic examinations such as General Gorgas practiced in the United States army during the World war, would mean a saving of \$1,500,000,000 annually. And the decrease in sickness and increase in happiness would be worth as much more.

"On any given day there are 3,000,000 people on the nation's sick list. One million of these are gainfully employed. The daily loss from this one source is staggering."

The County Societies are also proving receptive to the Gorgas Idea. They see in the movement a plan which will aid each member individually.

Some Points in the Physiology of Smooth Muscle and Its Nerve Regulation

The observations made by CHARLES W. GREENE and C. D. BONHAM, Columbia, Mo., (*Journal A.M.A.*, Sept. 13, 1924), are of significance to the clinical aspect of disturbances in both the alimentary canal and the uterus and its appendages. In circulatory stasis or respiratory inadequacy, in conditions of chronic anemia, or in the local conditions of intussusception or strangulation, or other sources by which the oxidation of the tissues is reduced below the normal level of efficiency, it is obvious that profound disturbances in the regulation and activity of the alimentary smooth muscle and of the muscle of the urogenital system may occur. It would seem that the factor of saline balance is of equal importance in the alimentary mechanisms and in the urogenital musculature as in other better known regions of the body. Calcium treatment as recently stressed, involves this alimentary muscle factor. The authors have the impression, from the character of response in experiments, that the effects, both of asphyxiation and of unbalanced salt solutions, on the intestinal segment and the uterus of the rat are largely a response to the influence of these conditions on the intrinsic nerve mechanisms. The chief basis for this belief is the promptness of the onset of the response and of its elimination in the recovery stages. This view is strengthened when the preparation is tested against drugs, for example, digitalis, which has scarcely received adequate recognition for its influence on the motility of the alimentary canal. Duodenal segments respond somewhat inconstantly to digitalis. Sometimes the contractions are inhibited as promptly as though extrinsic inhibitory nerves were stimulated. Again, the contraction rhythm is rapidly augmented and the tone is increased. These differences depend on the concentrations of digitalis used on the segment. Weaker doses inhibit, while toxic doses always stimulate the intestine to vigorous contractions. Physostigmin augments the rhythm and amplitude of the segmental contractions of the duodenal preparations, stimulating the parasympathetic and enteric nerve endings. The type of response is quite comparable to that occasionally observed under stronger digitalis. These drugs, especially digitalis, also react on the uterine preparation. The contractions are augmented. The response of the rat's uterus is so prompt and pronounced and characteristic that it would seem to be

nerve initiated rather than directly muscular. Even barium chlorid, which has come to be accepted in the literature as a direct stimulator of smooth muscle, belongs in this nerve classification.

Diagnostic Errors Leading to Uncalled-for Appendectomy

Henry Wald Bettmann, Cincinnati (*Journal A. M. A.*, Oct. 18, 1924), collected from private practice reports of some 300 cases in which appendectomies had been performed without relief. Patients could not always furnish accurate histories. Every case in which the history was uncertain or inconclusive was rejected. This rigorous censorship left only 170 cases for statistical presentation, although fifty other cases had features of practical importance. A careful analysis of the 170 cases led to the rather startling conclusion that fully two-thirds of all the patients had never been carefully studied before the operation, and the indications for any operation in at least one-third of the cases were very imperfect indeed. Not one-third of the patients had had a competent and thorough examination in the modern sense. Not that large a proportion had had an analysis of the gastric juice, any adequate observation under proper dietetic conditions or a complete roentgen-ray examination. Many were subjected to operation "on suspicion" because their digestive disturbances had resisted medical treatment and because many of them presented right iliac sensitiveness, gaseous distention or other signs or symptoms that seemed to point to the possibility of chronic appendicitis. In more than one-third of the cases the indications for an operation were quite insufficient. Of the 300 patients, thirty-five complained of serious disorders traceable to the operation itself. The commonest sequels were hernia, ileac stasis, omental and other adhesions and neurasthenia.

Does the Pancreatic Hormone (Insulin) Lower the Blood Pressure?

In the course of treatment of patients with diabetes mellitus, William Weinberger and Abraham Holzman, New York (*Journal A.M.A.*, Oct. 18, 1924), made the following observations: 1. Under insulin administration, a number of diabetic patients with hypertension showed a diminution in blood pressure. 2. Some with a normal or low blood pressure exhibited a still further lowering. 3. The factor of blood sugar reductions is independent from

the factor of blood pressure reduction, since many lowered blood pressure readings were obtained though the blood remained hyperglycemic on account of the diet being adjusted to that effect. Four cases are here cited. The capacity of insulin to reduce the blood pressure under certain conditions was also observed by Klemperer and Strisower, who obtained similar, though not identical experimental results. The authors raise the question: Does not insulin, representing, as it does, the internal secretion of the pancreas (if there should be an etiologic relationship between it and the lower blood pressure observed), act in conformity with the hypothesis of an antagonistic action between the hormones of the pancreas and suprarenal glands? That the height of the blood pressure bears some relationship to the concentration in the circulating blood of the suprarenal hormones is now generally recognized. Therefore, the administration of finsulin should have a tendency to lower the blood pressure, which should occur the more easily in conditions with hypofunction of the suprarenal glands, so that a syndrome analogous to Addison's may result.

—R—

The Question of the Existence of Amyloid Casts

In 3,047 necropsies performed at the Philadelphia General Hospital within the last three and a half years, fifty cases of amyloid infiltration of the kidneys were present; this gives an incidence of 1.7 per cent. Paraffin sections of formaldehyd fixed material were stained with methyl violet, and studied immediately after preparation. The relative distribution of the specifically stained amyloid matter was recorded, and particular attention was paid to the staining reaction of casts within the lumina of the tubules. The results are given by E. R. Saleeby, Philadelphia, Pa. (*Journal A.M.A.*, Jan. 31, 1925). Casts of various forms were found in forty-five cases; and only one of these, though doubtful whether it was a cast, gave a definite microchemical reaction for amyloid. This would throw doubt on the occurrence of amyloid casts in the urine of patients suffering with amyloid kidney and may show that the specifically staining amyloid plays no part in forming any of the casts.

—R—

Myxedema Heart

George Fahr, Minneapolis, Minn. (*Journal A.M.A.*, Jan. 31, 1925) states that in

myxedema there are definite objective signs as well as subjective symptoms of heart failure which may be present for many years, and which do not respond completely to the therapy of rest and digitalis but which are cured by thyroid medication. Characteristic of "myxedema heart" are an enormous dilatation of all chambers of the heart and absence of negativity of the T wave of the electrocardiogram in Lead I. The dilatation of the heart disappears rapidly, and the T wave becomes positive under thyroid medication. During the transition from a negative to positive T wave, we may get a stage in which the T wave is diphasic. A few cases show the split and prolonged Q-R-S group of Lead III during the stage of marked cardiac dilatation. The negative Q-R-S group in Lead III, thought by many to be characteristic of left ventricular hypertrophy, becomes positive in these cases after thyroid medication, thus proving for these hearts that a negative Q-R-S group in Lead III is not due to a preponderance of musculature of the left ventricle.

—R—

Granuloma Inguinale and Syphilis

The diagnosis of granuloma inguinale in the case of J. C. McRae, Atlanta, Ga., (*Journal A.M.A.*, Feb. 14, 1925), was based on: the history of the case; the fact that the ulcer had not improved under four months' antisiphilitic treatment; the appearance of the lesion; the immediate improvement under antimony therapy, and the reaction of the granuloma when antimony was discontinued. The diagnosis of syphilis was made, secondarily, on the appearance of the rash and sore throat, the three plus Wassermann reaction and the disappearance of all three under antisiphilitic treatment.

—R—

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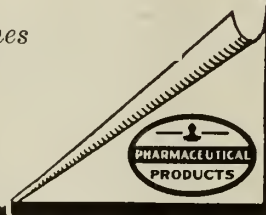
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Medical Education and Medical Service

The difficulties in medical service in the cities are seen in the way our young men are seeking the special careers, says William Allen Pusey, Chicago (*Journal A. M. A.*, Jan. 24, 1925). The great expression of this fact is the way our present graduates show a respondent tendency to go into the specialties. They are not going into general practice. The situation in the cities is not acute, because the supply of physicians of the older generations leaves for the present enough of that generation to meet the demands of general practice. But it is evident that, unless we can do something to change the trend, the time is not far distant when the problem of the general practitioner as we have always known him—the family doctor for the man of ordinary means—will be a serious one even in the cities. Another expression of the fact is the new difficulties in getting men to fill official and government positions that would naturally be filled by medical men when they are available. We are now compelled to look outside the profession to fill many positions having to do with medicine. The evidence is accumulating that we are producing only a very costly sort of physician and are not now producing men to do the ordinary service of medicine for ordinary people in the cities or the country. With about 25,000,000 potential income taxpayers in the country, 6,662,126 paid in 1921. The ordinary people are certainly over half of our entire population, urban as well as rural; so that the question of medical service for ordinary people is the biggest problem we have. Strong evidence is accumulating of the impending, and in places actual, breakdown of our present form of rural medical service. He wrote to the secretaries of the state medical societies asking whether the older generation of physicians in the rural districts is being sufficiently replaced to meet the future needs of these districts. Thirty secretaries of state societies answered No. Four secretaries of state societies (Florida, Minnesota, North Carolina and Rhode Island, the latter having no rural districts) answered Yes. Reports from different sources show that medical practitioners in the country are not being replaced in approximately 90 per cent of the states. If this condition of affairs should continue for a generation, it would mean that the rural districts would be without competent medical service. Unescapable evidence of the developing shortage in rural practitioners

is shown by the average age now of country physicians. It is above 50 years for the whole country. In many parts of the country the people are already getting medically helpless. They are running to all sorts of irregular practitioners. Nurses are taking on the functions of physicians, and in many places we are encouraging this. The worst aspect of the situation is in connection with infant care and childbirth. The subject is a topic of investigation by medical societies, of official and other addresses, of conferences. It appears in medical journals in advertisements for a doctor in this community or that, in news notes, in telegrams to the public press. In offering voluntary subsidies and passing laws to allow towns to tax themselves for the support of a needed doctor. Are we, with our eyes open to the obstetric situation as it is developing, ready to turn over childbirth in the rural districts to midwives? Could there be a more sobering matter for our consideration than that midwives are becoming the only reliance in childbirth of half of the community, in many parts of the country where the practice was hitherto unknown; that we are in our following of European standards of medical education, reverting to European peasant conditions in the practice of midwifery in a very considerable part of our self-respecting population? Such facts cut right to the core of our duties in social service. They demand correction, if correction is within our power. They outweigh immeasurably any ideals of medical culture as such, if these ideals can be attained only at such sacrifice.

FOR SALE—Excellent location in live town of five thousand, with a new city hospital, modern in every respect, under construction. For prices of invoice of office equipment with excellent office location of late Dr. H. R. Shumard. If interested come and see or write S. N. Dudley, Clay Center, Kan.

FOR SALE—Good practice in Southern Kansas town of 800 population. Good territory and little competition. Large pay roll. Will sell office equipment. Write C. H. D., care Journal.

KANSAS PRACTICE FOR SALE—South central part of state; work from the start; good office and home for sale, either together or sell office separately; good roads; modern town of about 800; will bear investigation; \$6,000 to \$8,000 annually; specializing; can give possession immediately after thorough introduction. Address R. O. H., care Journal.

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Restoration of the Pancreas

By C. F. MENNINGER, M. D., Topeka, Kan.
Read at the Northeast Kansas Medical Society, Lawrence, October, 1924.

Diabetes mellitus is a disease of pancreatic hormone insufficiency. Pancreatic function is insufficient when it cannot carry the normal load of carbohydrates. Diabetes is *caused* chiefly by overstrain of pancreatic function, by overindulgence of the appetite and by infection. Among its many *manifestations*, insatiable appetite, unquenchable thirst, frequent and copious urination stand out preeminent. Others less conspicuous are loss of weight and muscular weakness in spite of hearty eating.

The degree of pancreatic insufficiency can be *measured* by the amount of blood sugar under certain conditions. Glycosuria is not invariably present as a manifestation and therefore not as dependable as hyperglycaemia.

The *treatment* of this insufficiency is of two sorts, externally by supplied pancreatic hormone (insulin)—as Joslin says, "Making them walk on insulin stilts"—and internally by restoration of the pancreatic function. This restoration is accomplished by the undernutrition diet, having as its aim the conservation of the insufficient pancreatic function by physiological rest.

The technique of this diet adaptation, calculation and menu-making is not a part of this paper. We are now interested only in *treatment results* rather than in treatment methods.

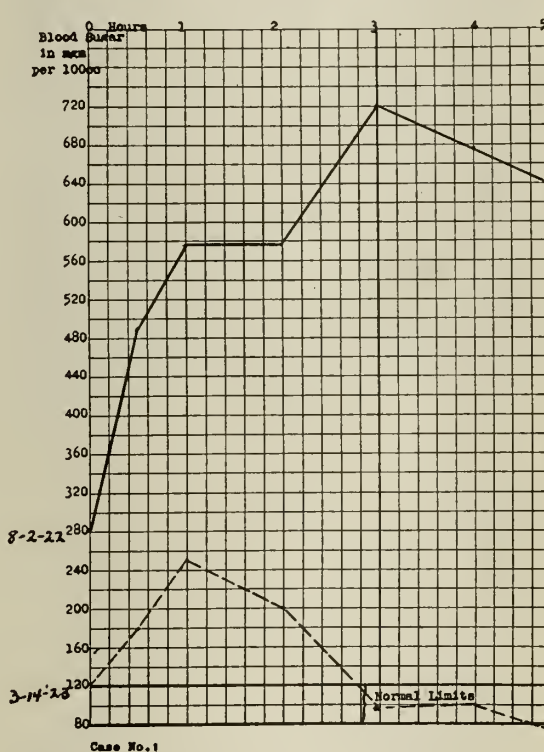
The results of pancreatic rest and restoration by diet (undernutrition with or without insulin) can be demonstrated.

- (1) By clinical improvement and
- (2) By quantitative measurement of the blood sugar through the use of the glucose tolerance test.

That diabetes may be cured, i. e., the pancreatic function restored to normal, as indicated by these two criteria, is the thesis to be substantiated by the presentation of the following cases.

Case No. 1. Mr. W., age 73, weight 163, 71 per cent, fifth hour, 63 per cent.

height, 5 feet 10 inches, father's weight, 225. Always a good eater. Sugar in urine discovered accidentally in February, 1922. Blood sugar, 28 per cent, fasting, August 2, 1922. Glucose tolerance test, third hour,



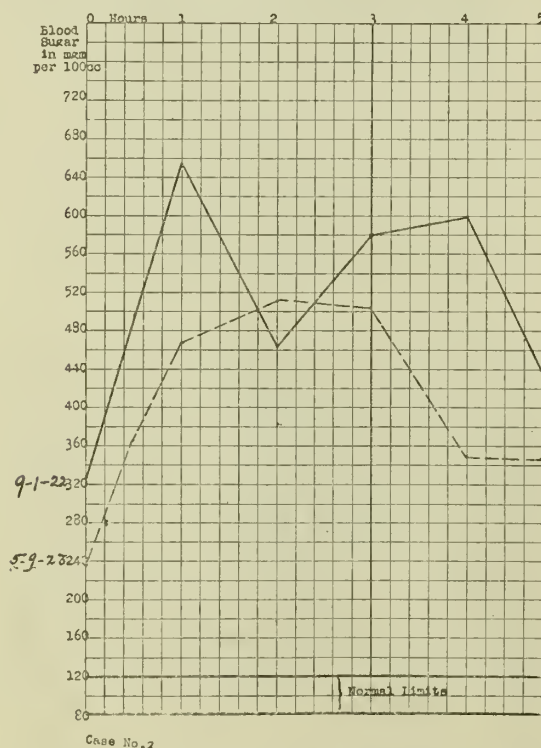
March 14, 1923. Blood sugar, 12 per cent, fasting; first hour 27 per cent; second hour, 20 per cent; third hour, .09 per cent

He entered the hospital, August 2, 1922, and in six days blood sugar on undernutrition diet of less than 500 calories became normal. Blood and urine sugar determinations were made at first every other day, and later once a week for three months; after that once a month and later once in two months. Glucose tolerance test was made at entrance and again 7½ months later. The diet had gradually been increased until he ate nearly the diet of the normal individual excepting all sweets, such as sugar, syrup and honey. This case was before the days of insulin and in order to make him sugar free he was

obliged to live on a diet greatly under his caloric needs. The glucose tolerance test curves demonstrate the splendid rehabilitation of his pancreatic function. (See charts, which demonstrate the alteration better than verbal description. Cut No. 1.)

Case No. 2. September 1, 1922, Miss F., age 49, weight 145. She had one sister who died of diabetes and three cousins (whose parents were obese) on both mother's and father's side of the family.

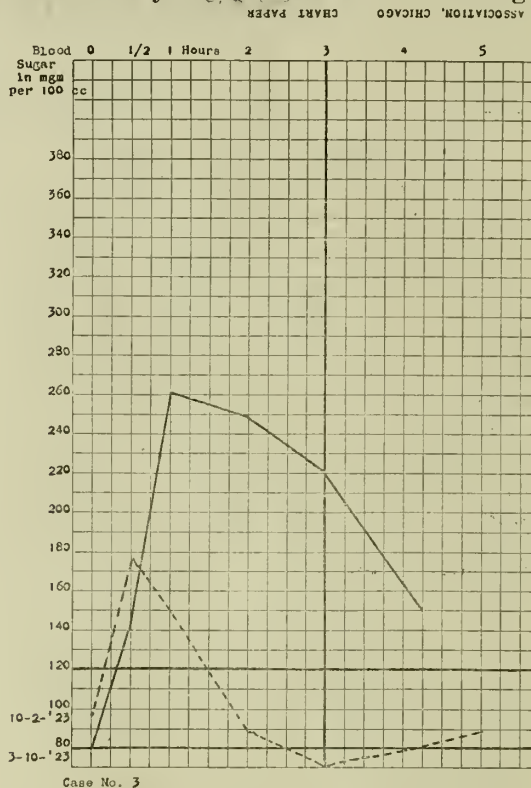
In November, 1920, she took some urine to her physician because she was troubled with frequent urination who on examination told her she had diabetes. This was soon after recovery from typhoid fever. She entered the hospital and it took eight days before the blood sugar was in normal range. It was necessary to continue her on a very low caloric diet to keep it normal. This condition has persisted and a comparison of the glucose tolerance tests made upon her with an interval of nine months between shows that her pancreatic function has not been greatly improved. No doubt the typhoid fever infection after which the diabetes first appeared, completely destroyed many of the Islands of Langerhans, thus leaving the pancreatic function much



under normal. Careful continued nursing of this weak function will probably do much

more toward pancreatic restoration. (See Cut No. 2.)

Case No. 3. Mrs. C., age 26, March 19, 1923. Two years after scarlet fever sugar

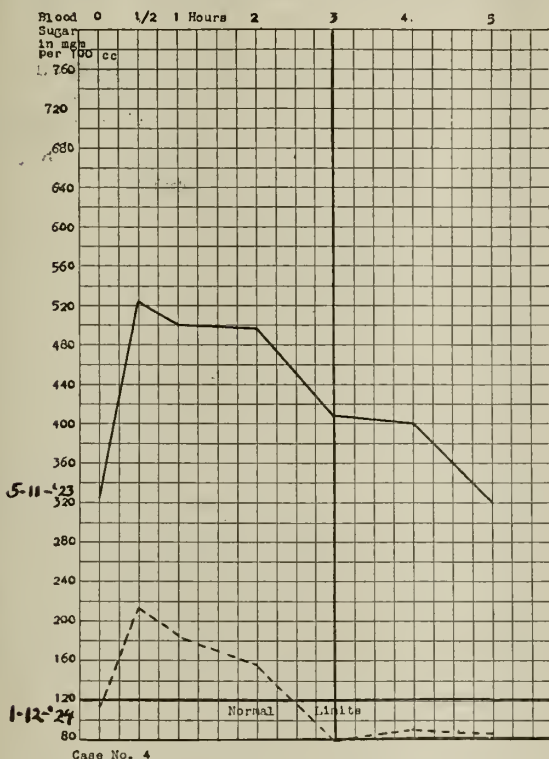


was discovered in her urine. Mother, whose weight was 160, died of diabetes at 58. Three out of five sisters are above normal in weight. She has always been a rather hearty eater. Her usual weight has been about 130; at entrance it was 108.

Glucose tolerance test was made on entrance into hospital, describing a characteristic diabetic curve of medium degree. She promptly responded to the undernutrition diet without the use of insulin and continued so without any difficulty whatsoever. The calories were steadily increased during her stay in the hospital and blood sugar estimates used to guide in the diet advance. (See Cut No. 3.)

Case No. 4. Mrs. S., age 62, May 13, 1923. Farmer's widow, whose usual weight was 225 plus, entered treatment weighing 187, which was about fifty pounds above her normal. There is no history of diabetes in her family, nor obesity. She had when quite young scarlet fever, pneumonia and typhoid fever. She has had but very slight illness since she was 25 years old. She has been overweight from 50 to 100 pounds since she was 25 years old. During child-

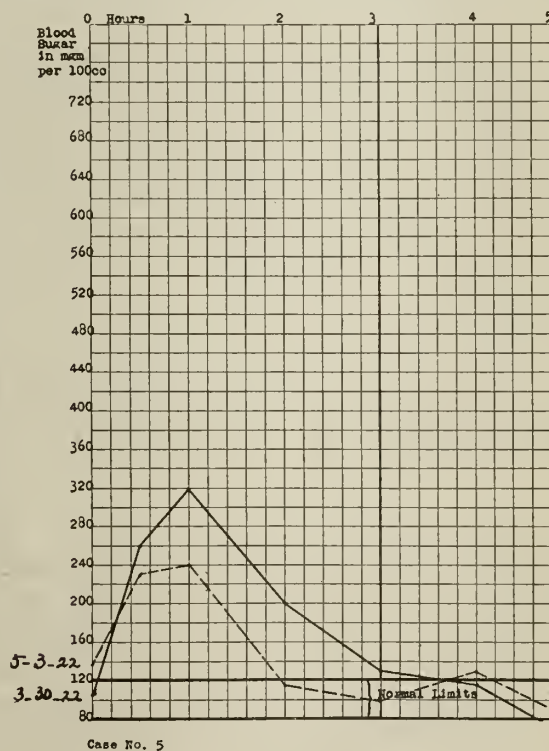
birth she was severely lacerated which was never repaired. On account of this lacera-



tion she has a constant insecurity of the bowel movement. To this she attributed the dysuria and pruritus vulvae, not suspecting that it was due to any other disorder. These bladder symptoms had annoyed her for some months. She did not seek the aid of a physician until a month ago who promptly diagnosed the diabetes. On entrance into the hospital the glucose tolerance test was made. She had 25 mgm. of blood sugar per 100 c.c. of blood, fasting, and five hours after the test had 200 mgm. more than normal, indicating a very marked pancreatic insufficiency. Her calories were reduced from 1250 to 80 in five days without bringing her blood sugar down to normal limits. She was placed on insulin and her diet advanced gradually to 1800 calories when she left the hospital. Since leaving the hospital she has continued the use of insulin until two months ago. She was then eating a very satisfying diet of 1950 calories and taking insulin but twice a day. Her blood sugar, which was examined on an average of once every two weeks, was found to be as a rule normal or but slightly above normal. Her weight fell from 187 at the time of beginning treatment to 136. Her blood sugar remained normal (fasting) and she says she feels perfectly fine in every

way and has plenty to eat. Her weight at the last examination when her blood sugar was normal was 139, having gained 3 pounds during the past month. (See Cut No. 4.)

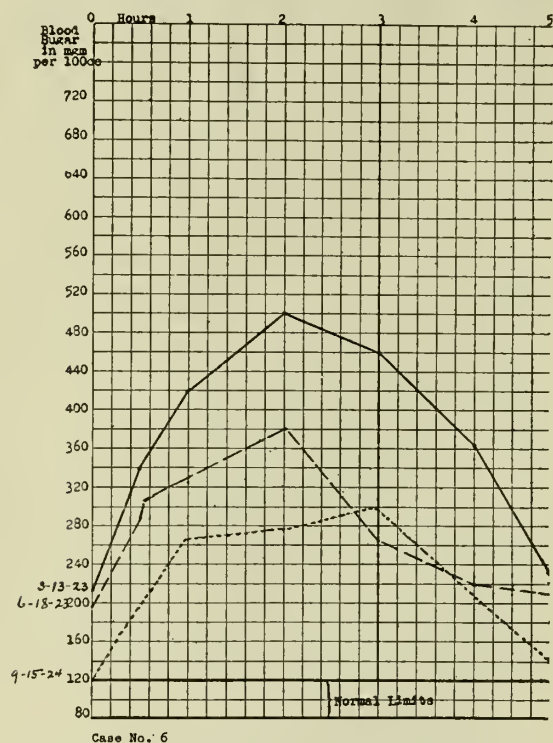
Case No. 5. Mr. W. C. M., age 55, weight 247½ (77 pounds overweight). Usual weight for the past 18 years about 250. Came for treatment March 29, 1922, for diabetes. Obesity was a trait in father's family. He has had pneumonia three times. Glucose tolerance test was first made March 30, 1922, when he was found to have a mild type of diabetes. He was ordered to abstain altogether from the use of sugar, syrup, honey, molasses and candy and the use of sweetened foods. This he promised to do and to return after several months for another glucose tolerance test. This was done on the 3rd of the following June. The blood sugar curve was improved in that it did not rise to as high a point in the first hour and that it returned promptly to normal by the second hour. The injunction relative to eating sweets given after the first test was repeated. He has returned recently saying that he had lost some in weight and that he was abstaining altogether from sweets. His pancreas, which had done herculean work, had not been



greatly affected by the very generous diets upon which he built up such great weight

and hence restoration was readily accomplished by abstinence from sweets. (See Cut No. 5.)

Case No. 6. Mr. E. C. T., age 31, weight 159. Three years ago when the diabetes

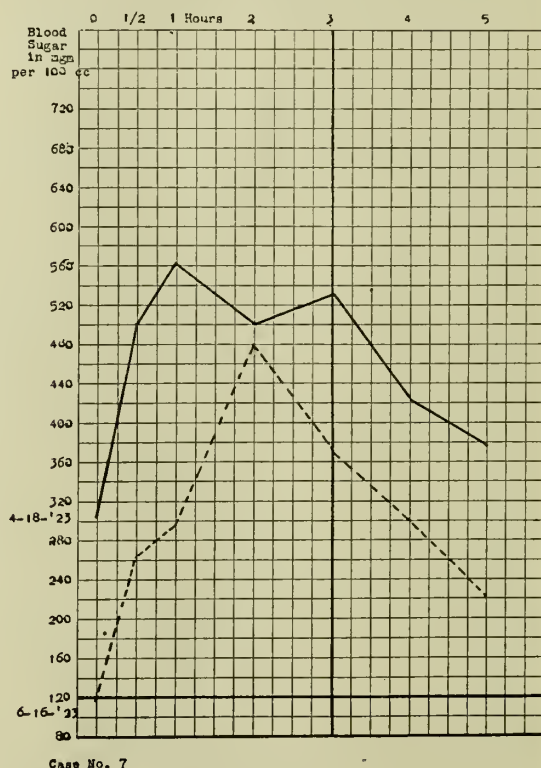


was first diagnosed his weight had been 220 pounds. His mother is above normal in weight and had diabetes when pregnant with this patient. His mother's sister is quite obese. He has always been an inveterate candy eater. He entered for treatment March 12, 1923, and was given his first glucose tolerance test. He was at once put on an undernutrition diet. We were unable to bring his blood sugar anywhere near normal figures; therefore he was given insulin and kept as near the normal sugar values as possible. His total calories were steadily increased and although he has lived closely to his diet he has not improved so as to discontinue the use of insulin. This will be seen by the second glucose tolerance test made on him, June 18, 1923. From close observation and study, I feel that insulin has not been any help to him; on the contrary a hindrance in bringing about a restoration of his pancreatic function. (See Cut No. 6.)

Case No. 7. Mrs. W., age 36, weight 120. Former weight 163. Her father weighed 215. Had a brother who died at 12 with diabetes. Her sister's son had diabetes. Has had pneumonia three successive wint-

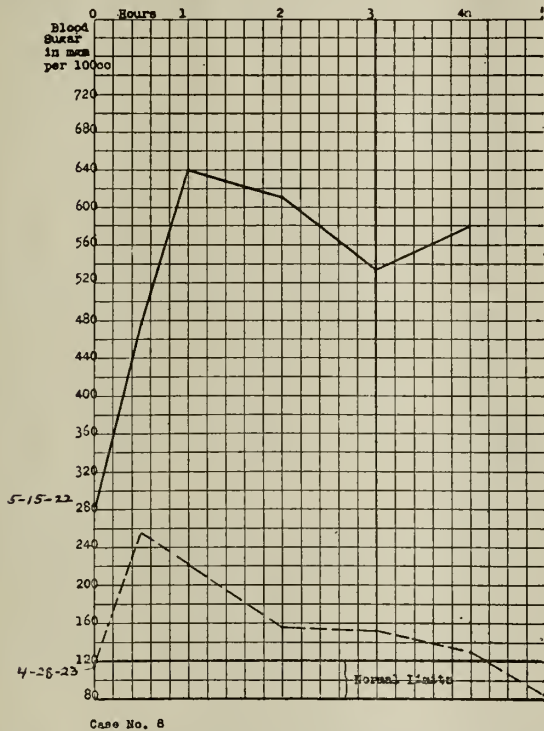
ers in childhood. Also has had scarlet and typhoid fever. Diabetes was first discovered three years ago. She entered the hospital, April 16, 1923, and a glucose tolerance test was made on her. She had a 3 plus urine and 304 mgm. blood sugar, fasting, and at the end of the test had 376 mgm. blood sugar. Undernutrition diet and insulin have been faithfully kept up. Her second glucose tolerance test shows some pancreatic restoration. Perseverance in closely calculated diet and insulin will make more restoration. (See Cut No. 7.)

Case No. 8. Mr. P., age 61, weight 186, highest weight 267 pounds. His father's weight was 320 and mother's weight 185. Entered the hospital for treatment for diabetes May 13, 1922. Before taking the glucose tolerance test, his blood sugar was 285 mgm. per 100 cc. and at the fourth hour it was 561 mgm., showing that he had a very poor pancreatic function. He was put to bed on account of a tendency to acrocyanosis of his feet, with tendency to gangrene, and also on account of undernutrition diet. This case was treated before



the advent of insulin. He was kept on a very low caloric diet for four days, when his blood sugar came within normal limits. He had a fine co-operative spirit. After three weeks in the hospital he had made

sufficient gain to be up and about and was allowed to return to his home. He had

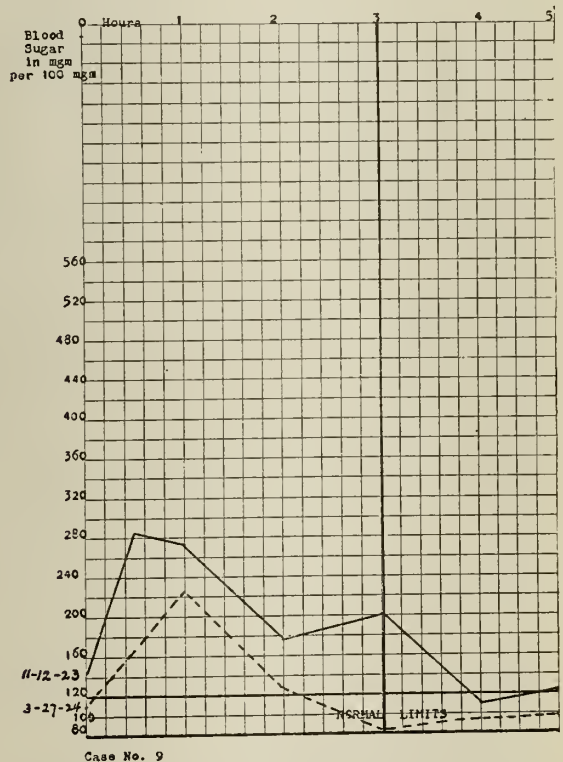


been a good student of dietetics and so was able to plan his menus and calculate the calories.

On the 28th of April, 1923, nearly a year after his entrance, he was given another glucose tolerance test. It will be seen that he was not wholly normal at that time. This is to be accounted for, that being a traveling salesman he was not always able to get to eat the things he ought to have, even if he was really anxious to keep to his prescribed diet. Someone had told him that if he would drink only a certain kind of mineral water all the time (which the agent was anxious to sell) he would not need to live so carefully on his diet. Some tares were sown into the good wheat. He bought several cases of the water and had it shipped to the several stations on the road, his regular route, and here is where he began to tear down and destroy the fine work which he had built up. It will be seen, however, that his pancreas function was splendidly restored. Now he is penitent and going the straight and narrow path of diet. (See Cut No. 8.)

Case No. 9. Mr. D. A. J., age 55. Former weight 180 (30 pounds above normal); present weight 155 (10 pounds above normal). Mother died of diabetes. Sugar was discovered in his urine 6 years ago. Dieted

some but very ignorantly and irregularly. Came under our treatment November 11, 1923. Before taking the glucose tolerance test and after fasting for 14 hours his blood sugar was 146.6 mgm. per 100 c.c. of blood. At the third hour it was still 200 mgm., but returned to normal about the fourth hour. He was put upon a diet of 20 gm. of carbohydrates, 70 gm. proteins and 100 gm. fats. This was gradually increased, the blood sugar remaining constantly within normal limits, until he is now taking 2500 calories. His weight fell to 142 pounds but now stands at 155 pounds. He is eating a very generous diet, all weighed and carefully selected, and is feeling better than he has for years. A comparison of his former glucose tolerance test with the last one shows how well the pancreas has been restored. (See Cut No. 9.)



CONCLUSIONS.

We have endeavored to show by the presentation of nine cases that the endocrine function of the pancreas, depleted by various causes to produce the syndrome of diabetes, may be restored to normal by placing the pancreas at rest by proper dietary restrictions, in some cases aided at first by insulin administration, and that this restoration may be conclusively demonstrated by both clinical and laboratory data, which are cited.

Syphilis and the Necessity for Its Control

EARLE G. BROWN, M. D.

City Health Officer, Topeka, Kansas.

(Read at the meeting of the Golden Belt Medical Society, April 2, at Topeka.)

Syphilis presents in all probability, a wider variety of interests than any other disease. Syphilis is a disease of man and one of the most important diseases that affect him. Jonathan Hutchinson wrote, "It (syphilis) is an epitome of pathology." Syphilis must be taken into consideration in every branch of medicine. From a sociological standpoint, it is the most difficult of all diseases to deal with, because it is so thoroughly involved in the problem of modern civilization—in regard to the relation of the sexes.

Syphilis is a chronic, infectious, contagious disease, caused by a specific organism, known as the *Spirocheta Pallida*. It is a disease that unless cured, in the great majority of cases runs as its course the life of the patient. It is a disease which is characterized by exacerbations and by remissions in which there is no evidence of active disease. Syphilis is a disease that causes many and various types of physical and mental deterioration, which in some cases lead to incapacity and in others, death. Syphilis is the only contagious disease transmitted by the parent to the child. Because of the devastating effects of the disease, the individual must in many instances be considered as a possible future ward of the city, county or state, for the reason that he may become incapable of caring for himself or his family. The syphilitic may in time become the progenitor of defective children, who in turn may become wards of some charitable institution. Dr. Perry informs me that approximately 12 per cent of the admissions at the State Hospital at Topeka are syphilitics. Because syphilis is such a treacherous disease, each individual so infected must be considered as a potential source until adequately treated.

Pusey tells us that the history of syphilis is unique among the records of great diseases. Unlike most diseases it appeared on the stage with a dramatic suddenness in keeping with the tragic reputation it has made as a great plague which swept within a few years over the known world. Pusey states that the history of syphilis began with the date of the discovery of America.

We are informed that in the autumn of 1494, Charles VIII of France with an army of soldiers recruited from all parts of Western Europe, and some of them former sail-

ors with Columbus, invaded Italy for the conquest of Naples. Italy was weakened at this time, the result of various excesses and the invasion was a triumphal march of debauchery rather than a military campaign. Charles made good his claim to the throne but ruled for a short time only, for his army was soon weakened by dissipation and disease, and easily driven out of the country. With the scattering of Charles' army over the world, the disease which we now recognize as syphilis began to appear. Many observers dispute the theory that syphilis is of American origin. Vorberg is one of these authorities and he has recently reviewed the entire history of syphilis and the different theories of its origin. Some authorities say that the disease originated in Italy, others say in Ethiopia, while some contend that it is of Spanish origin.

My experience in syphilis is necessarily limited, but during the past five and one-half years, I have had the opportunity to personally observe 331 cases, of many and various types of the disease. It has been my privilege during this time to administer treatment of some kind to practically every one of these cases.

In June, 1919, the Department of Health of the City of Topeka, established in cooperation with the State Board of Health and the United States Public Health Service, a clinic for the treatment of individuals infected with venereal diseases. This clinic was established for the purpose of treating those persons who were unable to pay a private physician for his services.

Cases admitted to clinic are shown in the following tabulation:

	Male	Female	Total
Primary	32	9	41
Secondary	39	39	78
Tertiary	49	32	81
Neuro	43	41	84
Latent	7	10	17
Congenital	14	8	22
Tabes	4	0	4
Paresis	2	1	3
Cerebral	0	1	1
Total	190	141	331

In our clinic, we have diagnosed a total of 41 cases as being in the primary stage of the disease. Only 15 cases of primary syphilis have been admitted in the past two years. Eight of these cases were in men and 3 of them contracted their infection from the same girl. If these figures may be taken for comparison, it would

seem that the number of new syphilitic infections are decreasing. Such statements have been made. Newman in the British Medical Journal, 1924, II, 382, in a report on "The State of the Public Health," says: "A considerable diminution in the number of fresh infections with syphilis seems to have occurred."

We have seen cases of double infection with syphilis and gonorrhoea in 28 individuals. We have admitted and treated 24 husbands and their wives. We have seen two cases of a secondary infection with syphilis, both of the patient's presenting a similar history. On first admission, both were diagnosed as having secondary syphilis and both were given approximately the same routine treatment. After having the usual course of treatments, each of the young men had two negative Wassermanns taken at three-month intervals. They returned at approximately the same time; one with a chancre of the lip, the other with a chancre of the penis. Both of these patients had positive dark field findings.

The ages of these patients presents an interesting comparison. Twenty-two were under 16 years of age, the majority of the infections classified as congenital, although within the past two months we have admitted for treatment a girl of 13 with a diagnosis of chancre of the cheek. Our youngest patient was a baby of 9 months, our oldest, a man of 71 years. One hundred fifty-eight, or 47.7 per cent of all admissions for syphilis were between the ages of 19 and 29 years. One hundred twenty-one, or 35.1 per cent were 30 years of age or over.

The class of patients that we have are much different than the ones that you as private physicians see. Many of our cases are brought in by the police, others by welfare workers. Still others come in voluntarily. Some are referred by other clinics in our department, while an increasing number is being sent in for treatment by physicians in private practice. Many of our patients are faithful in their treatments, others are indifferent. Our greatest difficulty is in keeping the colored patients under treatment, for with the administration of a few intravenous Neo Arsphenamine, they feel so much better physically, that they of their own volition discontinue treatment until such time as they again feel the deteriorating effects of the disease and are again ready to return and resume treatment.

In my introductory remarks the state-

ment was made that syphilis was a sociological problem. The comparisons which I shall now give you refer not alone to syphilis infected women, but to the women interviewed, whether infected or not. These figures are from October 6, 1919, to August 1, 1920, and are the result of interviews with the women, by the nurse in the department.

Conjugal State of Female Patients.

Number of women interviewed.....	334
Number never married.....	195
Number married sometime.....	139
Number married under 18 years.....	115
Number married at 17 years.....	5
Number married at 16 years.....	53
Number married at 15 years.....	49
Number married at 14 years.....	8

Of the 115 girls who married under the age of 18 years, 7 said their husbands were dead: of the remaining number, but 3 could tell the whereabouts of their husbands. The children of these 115 women totaled 305, at least. One hundred seventy-one of these children are known to have been cared for in state institutions to the present time. Of the remaining number (134) only a few were cared for by their mothers.

For the past three years we have referred all cases of syphilis to the Nervous and Mental Disease Clinic in charge of Dr. Karl A. Menninger, for a complete neurological examination including spinal fluid examination. After this examination is completed, Dr. Menninger returns the patient to us with a report of his findings and suggestions relative to treatment.

I know of no better way of illustrating the effects of syphilis and the results secured in the clinic, than in presenting a few case histories:

Case 1, a male, 50 years of age, truck driver by occupation. Married in 1900, divorced in 1911, claiming incompatibility and infidelity. Gonorrhoea in 1914. No history of syphilis. Wife had no miscarriages and has a negative Wassermann. Five children born and 4 now living. In 1923, patient had lesions on scrotum and ulcer developed on rectum. These lesions lasted three months and cleared up under "blood medicine." "Sores" in mouth for past year, vision has gradually failed for the past five years. Left pupil larger than the right, reacted sluggishly to light. Right knee reflex slightly exaggerated, while other reflexes were apparently normal. Dull grayish yellow patches at the angles of the mouth and on the palate. The first Wassermann was negative, while two others

taken one week apart were both positive. Diagnosis: Neurosyphilis with tertiary manifestations.

Case 2, a son of the patient previously mentioned, and 19 years of age. Measles at five years of age, complicated by pneumonia and claimed to have had impaired eyesight following. Convulsions at age of five and claimed he was unconscious for six weeks. "Brain fever," whooping cough and influenza. Walked at one year of age. Entered school at age of 7 and quit at age of 15, while in the seventh grade. Wassermann positive. Examination: Eyes—Pupils, right slightly irregular and reacts sluggishly to light. Left eye does not react to light or accommodation, and pupil very irregular. Steamy cornea, photophobia. Vision practically nil, light perception only. Reflexes: Knee jerk, biceps and triceps absent. Babinski not obtained. Romberg negative. Diagnosis: Congenital syphilis.

Case 3, a daughter of the first patient and sister of the second. Thirteen years of age and student by occupation. In August of 1924, a "sore" developed on the left cheek. Came into clinic with brother and Wassermann taken at that time was negative. Dark field examination was not made. Two weeks later, we wished to take another Wassermann, but our request was refused. About October 15, patient was sent from school by the nurse, again coming to our office for a school permit. The permit was refused unless we had another Wassermann. The mother refused, saying the pain was too great. In a week's time, the mother consented to the Wassermann, which was strongly positive. Physical examination showed enlarged cervicals and epitrochlears which were not present at the time of the first examination; some headache and a slight sore throat. The lesion was entirely healed after two intravenous injections, only the scar tissue and the discoloration remaining. Diagnosis: Chancre of the left cheek.

Case 4, a granddaughter of the first patient, 2 years of age. Birth normal, weight 5 pounds. No snuffles or skin trouble according to the mother. Mother's blood negative. In February, 1924, while residing in another state, an eruption appeared at the corners of the mouth, on the lips, eyelids and fingers. This sick spell the mother stated was diagnosed as "lung fever." The child was taken to the venereal disease clinic, where a diagnosis of syphilis was made and treatment begun.

The mother stated that "all sores healed within a few days after the first treatment." No skin lesions or evidence of syphilis were detected on admission to our clinic. Diagnosis: Congenital syphilis.

Case 5, a white male, 46 years of age. Farmer by occupation. Admitted to clinic June, 1922, his chief complaint being a generalized tremor, which he called "nervousness." Numerous ulcers all over his body. All reflexes greatly exaggerated. Marked tremor of arms with tendency to be of attention tremor type. Said that he contracted his primary infection two years previously. This patient had received up to the time this paper was written, 64 intravenous injections of Neo Arsphenamine and 70 intramuscular injections of mercury bichloride. His lesions healed within a short time after the first few treatments, and his general physical condition improved greatly, so that he was physically able to do a full day's work in the field. Diagnosis: Tertiary syphilis.

Case 6, a white male, 49 years of age, a laborer by occupation. This patient first consulted Dr. Mills because of a hernia. Dr. Mills detected a saddle nose and requested a Wassermann, which was positive, and immediately started treatment in our clinic. The patient's only complaint other than the hernia was that in November, 1922, he had had sharp shooting pains over the left eye, which increased in severity for a short time and then disappeared in January, 1923. Similar attacks occurred in November, 1923, and were more severe at night. No history of infection obtained. Bridge of nose ulcerated away, 13 years previously, and according to the patient's story, pieces of bone came out through the nostril. This patient, his wife and four children were referred to Dr. Menninger. The wife and children had negative Wassermans, and negative neurological findings. Neurological examination of the patient showed: Pupils—Right slightly larger than left; react promptly through distance about one-fourth normal. Right side of face flattened, left angle of mouth droops. Tongue protrudes slightly to right. Forehead typically olympic. Slight swaying in Romberg position. Arm and knee reflexes exaggerated. Diagnosis: Congenital syphilis. After one course of treatment had been given, Dr. Mills operated the hernia, securing an excellent result.

Case 7, a white female, 17 years of age. Entered clinic November, 1922. Came in for examination because of burning on

urination and vaginal discharge. Gonococci present on microscopic examination. About January 20, a lesion developed at the lower angle of the vulva and dark field examination a few days later showed the organisms of syphilis present. Patient denied having had intercourse after the time she began treatment for gonorrhoea. Diagnosis: Acute gonorrhoea and primary syphilis.

Case 8, a white male 56 years of age. Referred to our clinic from the Hot Springs clinic. Acquired syphilis in July, 1905, and says that rash appeared three weeks after the primary sore. Consulted three Topeka physicians who told him he had syphilis and advised him to go to Hot Springs for treatment, which he did. He had 44 baths and mercurial rubs. In 1911, he fainted, according to his story and was unconscious for a period of about 7 hours. He had complained previously of malaise and vertigo.

His story: "I was returning from the toilet, just got dizzy and fell over on the pump. Have never walked well since that time. I drag my left leg, and I thought the trouble was caused by eating some poisoned hash." Returned to Hot Springs a second time in November, 1921. Had 53 baths, 11 salvarsan and some mercurial rubs. Returned to Topeka in February, 1922, and was admitted to our clinic. Examination, March 8, 1922: Pupils approximately equal and react promptly to light through about half the normal distance. Left slightly lower than the right. Knee reflexes hyperactive. Romberg hyperactive. Left ankle clonus. Contracture of flexor tendons so that he walks with knee bent. Scars of deep ulcers on various parts of body. Diagnosis: Neurosyphilis diffusa with tertiary lesions. This patient has had approximately 90 intravenous treatments, more than 100 intramuscular injections of mercury, and also iodides and blue ointment.

Case 9, a white female, 25 years of age. Waitress by occupation. Father and mother divorced when the patient was quite young. The father obtained the divorce and custody of the child because of immorality on the part of the mother. The father was unable to make a salary sufficient to support the children. They were adopted by a family who provided well for them. At the age of 14 the patient eloped with a man old enough to be her father. They were apprehended, the marriage annulled and the child returned to the family where she had been staying. Patient contracted gonorrhoea from her husband, which resulted eventually in

the development of pus tubes, which were later removed. At the age of 16, she again married and according to her story, her husband treated her so badly that she attempted suicide by drinking carbolic acid. Her second husband infected her with gonorrhoea and she was referred to our clinic by a private physician. She reported that her mother died of syphilis in July, 1921. The adopted sister was married in 1917 or 1918 to a man who had syphilis. She had two children—both syphilitics. The oldest child was practically blind. This patient divorced her husband and again married. Her second husband infected her with gonorrhoea. The four-year-old girl in addition to her syphilis, also had a gonorrhoeal infection.

We have tried to present a few representative cases. Some of them are typical and some atypical. A great many of them have responded to treatment while others have been benefited very little, if at all.

A few words as to our treatment. It is our method to give arsphenamine in courses of eight doses, one week apart. We also use mercury bichloride in one grain doses, intramuscular. At the end of a course, these individuals are placed on a rest for four weeks and then a Wassermann is taken, after which the second course of treatment is given. The number of courses varies, according to the response of the patient. In our young patients, we use mercury rubs. In the old infections, we use iodides; and only recently, in some of our stubborn cases we have begun the use of bismuth intramuscularly. When the patient has reached the stage where we believe him theoretically cured, we then place him on a rest and instruct him to return at three-month intervals for Wassermanns. If at the end of a year, these tests are all negative, we refer the patient to Dr. Menninger for final neurological examination including spinal fluid examination.

Engman says that with a frank eruption or a frank chancre, the prognosis is better. The type of syphilis, with little or no eruption goes directly to the nervous system and is most dangerous. A mild strain of the spirocheta with overtreatment will cause a virulent syphilis. Some strains do not respond to treatment and will remain mercury or arsenic fast, or both.

CONCLUSIONS.

1. Municipal or kindred clinics are necessary to provide treatment for those individuals unable to pay a private physician for his services.

2. Early intensive treatment is necessary to provide an early cure and also to protect the public from danger of infection.

3. Treatment of advanced cases of syphilis is important, not in the hope of always establishing a cure, but to stop further damage to the physical make-up of the infected person and thus lessen the possibility that he may become a ward of some charitable institution.

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President's Address to the Sumner County Medical Society

ALBERT R. BURGESS, M. D., Peck, Kan.

March 26, 1925

Officers and Members of the Sumner County Medical Society and Friends:

It is indeed with pride that I stand before you tonight as president of this society, perhaps an added pleasure since this, Sumner County, is my old home county, having come here when a little more than two years of age and ever since calling it home.

In one way the office of president was accepted rather reluctantly, realizing fully as I did that as to natural trend, ability, and inclination there are many others, indeed, if not all of you members, far more competent than myself to steer this lagging organization on to success. But on the other hand, when I remember that the office is one that must be filled for the proper functioning of the society, and fully conscious of the waning interest manifested in the recent past, it was not surprising that many, if not all of you, realized your practice too pressing, your time too valuable to devote a portion thereof to an inactive, uninteresting and seemingly slowly degenerating County Medical Society. It was here that I recognized my status, such as leisure hours which at times hang heavily on my hands, and because of no rush of patients storming my door to molest my somber quietude, I was the logical one to fill the place.

To begin, I wish briefly to enumerate a few reasons why we should belong to the County Medical Society, and as a prerequisite have and maintain a County Medical Society and some of the benefits derived therefrom.

1st. Our membership in the Sumner County Medical Society is the first prerequisite towards becoming a member of any other medical society or association. Membership in the Sumner County Medical Society automatically makes us a mem-

ber of the Kansas State Medical Society, and with this qualification we are eligible for membership in other societies and associations, such as the Tri-County Medical Society, The American Medical Association, and others.

2nd. The meeting together of physicians promotes fellowship and co-operation among them. As a rule, and I think without a single exception, in our County Society they are all fine fellows and the more we know each other and come in contact with each other the closer we feel towards one another, and no one can practice medicine successfully alone. These meetings also bring about an exchange of ideas that are always beneficial to each of us in our daily work.

3rd. The general public has at last gotten away from the idea that a medical society is a combine or union against their general welfare, but on the other hand realize the real truth and benefits concerning them. No insurance company wants an examiner who does not belong to the County Society for they know there is something wrong if he does not.

4th. By being a member of the County Medical Society you automatically become a member of the Kansas State Society which gives you good standing with other reputable physicians of the state, and for that matter, the entire country. Among the other privileges of the society you receive monthly the Journal of the Kansas Medical Society, which compares favorably with any other similar publication.

5th. By being a member of the Kansas Medical Society we receive the benefits of the medical defense feature, which provides that the society will defend any of us in damage suit by furnishing legal counsel in the courts, or bringing about a settlement out of the court if such is possible.

6th. Last, but not least, the County Medical Society as an educational factor has great possibilities. In the early days of medicine the society constituted an open forum where the physician might present to the medical world an original investigation and many epoch making discoveries, such as those of Addison and Sydenham, first received publication from the societies. Perhaps few or none of us may hope to make such important and far reaching discoveries, but such papers as each of us may write, serve to broaden our vision and prevent medical astigmatism. Again, these medical societies are of value to the com-

munity in which they are, because membership in, and attendance on them, make better doctors and these doctors are better able to give scientific and successful service to the patrons whom they serve.

Then again, it should be made more of an honor than it is supposed to be, by some men to become a member of the County, State and National Medical Society. The public should know when a man cannot qualify for membership that there is a mighty good reason. In fact, he should compare favorably with the old Aphorism of Hippocrates; who, said a physician, should be an upright man instructed in the art of healing. He should be modest, sober, patient, prompt to do his whole duty without anxiety, pious without going so far as superstition, conducting himself with propriety in his profession, and in all the actions of life.

WHAT'S THE MATTER WITH SUMNER COUNTY MEDICAL SOCIETY, AND SOME SUGGESTIONS WHICH I TRUST WILL STIMULATE GREATER ATTENDANCE AND PROMOTE MORE INTERESTING MEETINGS.

To have a society that fulfills its purpose and is therefore attractive and helpful, one must recognize several problems. Unless members find when they attend the society meetings that they are helped professionally, mentally, socially and perhaps financially, they lose interest, and losing interest fail to attend further so that the purpose of the society is nullified. Then too, sometimes cliques appear or perhaps are conspicuous by their absence from the meetings which tend to rule from the standpoint of revenge rather than for the furtherance of the interest of the society.

Perhaps the infrequency of the meetings tend to detract interest therefrom. The American Hospital Association requires staff meetings at least once a month, and as they are usually interesting it occurs to me meetings of the Sumner County Medical Society might with propriety be held more often. Then too, the benefit derived by each and every one is usually in direct proportion to the interest and effort put forth. There is no truer proverb than that "In union there is strength." We might with greater attendance and interest at the meetings be able to better our condition. The men who habitually steer clear of the County Medical Society are usually retired or are the non-progressive physicians of the community. The busy men generally man-

properly organized and conducted. There are few who do not manage to return home with something added to our store of knowledge, or there is something wrong with us and it ought to alarm us.

Another important reason why each and every member should take an active interest in the County Medical Society is that at the present time there are large numbers of organizations of various cults and isms which are taking advantage of the medical profession. The members of these cults and isms lacking the broad view and bearing of the professionally trained man resort to various tricks of commercialism for the furtherance of their business and because of their advertising propaganda many have become uncertain in whom to place their confidence. This society in common with the profession at large has permitted a growing doubt in the laity so that many of the hard working, self sacrificing, general practitioners are imposed upon. It is the duty of this society, as well as the medical profession in general, to protect the interests of its members. This does not mean that we necessarily become politicians, although at times it may be necessary, but it does mean that we physicians must become the educators and leaders of the general public in health matters. We should perform these functions intelligently in a broad minded manner with an eye to rendering service in the community, carrying out such service in a manner which is not detrimental to the interest of the profession, which would also ultimately be detrimental to the public. We should also have laws to protect the public against various health promoters and cults. The laity are as gullible in matters of health as doctors are in the world of finance.

Just a few remarks concerning the character or nature of the meetings. Since the Sumner County Medical Society is composed of men of various likes and dislikes, the society programs should of necessity be composed of diversified subjects. Not by any means should the entire meeting be given to papers and discussions of scientific character alone. Perhaps the greater number of the members are interested mostly in the many phases of preventative and curative medicine. Some in the economics of practice, and no doubt not a few enjoy the sociability of the meetings which should be allotted sufficient time. The social committee should ever co-operate with the of-

more society instilled into the meetings the less friction and back biting there will be. While the social feature of the meetings usually entail some expense, yet it seems to me this should not be so great as to in any way prohibit.

Perhaps one way to stimulate interest in the scientific program would be for each member, or as many as will, to come with a five minute paper on some phase of a subject, to be decided by vote at the previous meeting. The president might select the phase of the subject for each member, or if possible permit the members to select the phase of the subject most suited to them. Then a general discussion should follow the whole reading of this symposium. By this method discussion would not wander away from the original subject matter, and it is but natural that we take more interest in a meeting in which we have taken part, and by this method or system no member is left out.

It is axiomatic today that the richest fruit is plucked from the tree of service. Let us bury our inherited and occasionally antagonistic individualism and rear in its place an ever-living co-operative frater-nalism.

— R —

Significance of the Colloidal Properties of Gelatin in Special Diets

THOMAS P. DOWNEY, Ph.D.

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An examination of the dietetic possibilities of gelatin from a chemico-physiological standpoint reveals a number of properties which should make this unique food product a valuable addition to special diets, particularly those in which milk forms the sole or major portion. In such diets gelatin functions as a protein food to the extent of the utilization of its amino acids by the body and in addition possesses marked activity as a protective colloid and emulsifying agent. Practical observations in clinics and hospitals as well as experimental work in laboratories indicate that these characteristic properties of gelatin as a colloidal substance exert a most significant influence in promoting digestion and absorption of certain types of food.

The importance of this colloidal activity of gelatin where fed in conjunction with dairy products has been demonstrated by the writer in feeding tests with the albino rat. Shortly after weaning the young from several litters were divided into two

groups: one group received pasteurized whole milk as its sole diet, the other pasteurized whole milk containing one per cent of gelatin. Observations extending over a period of six months showed that the growth and physical well being of the group fed on gelatinated milk was markedly superior to animals fed on the plain milk diet. The increased growth was accomplished on smaller food consumptions. In fact, during the early growth period for equivalent gains in body weight the animals on gelatinated milk consumed about 23 per cent less food than the group on plain milk.

Another striking illustration is found in the writer's experiments with ice cream. Over a period of seven weeks it was observed that a group of rats fed on an exclusive diet of ice cream containing one per cent of gelatin gained no less than 25 per cent more in body weight than was the case with their brothers and sisters whose diet was plain ice cream. For equivalent gains in body weight, the food consumptions of the group fed on the gelatin-containing ice cream were much less. Smaller percentages of gelatin resulted in proportionate improvements. It is important to note in this connection that the better nutritional status of the gelatin ice cream group after a number of months on the diet was reflected in continued health and growth, and in increased bone development and reproduction in several cases.

It should not be presumed that the observed improvements of the dairy products are due entirely to the added protein value of the gelatin but possibly more to the protective colloidal and emulsifying effects that it confers. The digestive processes are essentially colloidal phenomena, whereby fats, carbohydrates, and proteins are ingested in the colloidal conditions and changed by the various enzymes to degradation products capable of absorption by the body. To accomplish the formation of these simpler substances, the enzymes must come into intimate contact with the food particles. If, perchance, the food particles are present as large tough masses, as is the case with cow's milk coagulating under the influence of the hydrochloric acid and rennin in the human stomach, the contact surface of the enzymes with the food is limited and gastric digestion is delayed or impaired. Various specialists have described experiments in vitro as well as with humans which show that the coagulation of cow's milk by acid and rennin is prevented or modified in character in the presence

of relatively small amounts of gelatin. This effect is spoken of as protective colloidal action and it is interesting to note that gelatin is one of the most efficient of all known protective agents. Gelatin is also a good emulsifying agent and it is quite probable that it aids the secretions of the alimentary apparatus in the emulsification of fats.

In discussing the digestibility of milks, Chapin says that those animals whose stomachs form the larger percentage of the digestive tract and their digestion is largely gastric produce milks that form tough curds, as for example, the cow. In contrast is the human whose stomach forms only about 20 per cent of the digestive tract. Human milk curdles in light flocculent masses. It has been pointed out by Alexander that human milk contains a natural protective protein in large amount, which is present in small amount in cow's milk. It would seem, that the addition of such a protective agent as gelatin to cow's milk would make it particularly suitable for infants, and such has been found to be the case, as is testified to in pediatric literature.*

In like manner, gelatin has been shown to be of value in other dietaries composed largely of dairy products. For example, Hawk reports that the addition of gelatin to the milk-egg diets of tuberculosis patients resulted in decided nutritional improvements with the majority of the cases tried.

The experiments described suggest the advantages that are to be derived by the utilization of gelatin in other dietaries. The protective colloidal and emulsifying action of gelatin promotes the digestion and absorption of various types of foods. It is also misleading to assume that gelatin as a protein is of insignificant food value.

Feeding tests by McCollum and by Osborne and Mendal have shown that with certain cereal grains gelatin is exceptionally well utilized, presumably through its high content of the amino acid lysine. Also, with milk proteins gelatin is of value, as has been found by Sure. In combination with milk in the liquid form, it is believed, however, that the colloidal properties are of greater significance.

A Fable for the Kansas Doctor

BY RENIG ADE

The first of the year had arrived, and as usual the Doctor made a resolve to start a strenuous collecting campaign—an invoicing of accounts, good and bad, and a general right-about-face in business methods.

This he had regularly done for the past twenty years, and on one occasion had consistently persisted in this radical change of program for upward of two weeks.

Necessity usually was the prompter in this reform, for at this time past-due Christmas bills, forgotten pledges to struggling colleges having a million dollar movement, and other evidences of periods of optimism of the previous year were springing up with a startling frequency.

The medical journals, on front pages, were also advising the doctor in every issue to come out of his financial and business lethargy and make an attempt to register intelligence.

Under the urge of these potent reasons the Doctor made his annual excursion to the bank, and in the back room carefully went over the contents of his little safe-deposit box.

The first certificate was for fifty shares of Creamery stock purchased several years before, and which had promised to yield ten per cent. A colored man was now feeding hogs on what was left of this investment.

The box contained many other ornate and opulent looking evidences of investments in The Associated Grain Elevator stock, The Pazinkis Cement Corporation, the Catchem & Skinnem Oil Co., the Denver, Iarrup & Nowhere Ry. Co., the Gila Lizard & Jackrabbit Co., Inc., etc.

This latter startling eugenic innovation, promoted and presented about the time of Burbank's famous fruit and vegetable inter-breeding, had looked very plausible. And when the clever promoter in glib voice described the possibilities of the product of this union—well, the Doctor bought. Even now he remembered the solicitor's very words:

"We expect to combine the native inertia of the lizard with the prolificacy and fecundity of the rabbit, thus securing a succulent food easy of capture."

Certainly nothing could be more plausible. Any doubt that an affection more fervent than platonic could ever be established between these animals did not occur

*See, for example: Jacobi, "Industrial Diseases of Infancy and Childhood," 1887, p. 79; Starr and Westcott, "Diseases of Children," 1900, 23; Griffith, "The Care of the Baby," 1908, 386; and Friedenwald and Ruhrah, "Diet in Health and Disease," 1923, 295, 466. On the utility of gelatin in chronic intestinal infection, see Hexter, "Infantilism from Chronic Intestinal Infection," 1908, 101.

at the time to the doctor, and probably had never troubled the promoter.

All these stocks the Doctor slowly and thoughtfully ran through his fingers. A defiant glitter showed in his eye for a time, only to be replaced by a dreamy and far-away gaze, and he chuckled softly as he visualized the little part each of these gilt-and-green tokens had taken in the drama of life, and the very appropriate stage settings that had been employed, each time at least entertainingly different.

He saw as if it were yesterday the smooth individual from Tulsa whom he had met by special appointment after office hours, and who permitted him to buy the last fifty shares of a gas and oil unit which in all probability would ruin most of the farms in Oklahoma when brought in. Incidentally he had endorsed a small check for eleven dollars at the hotel, which he was compelled to pay when the check had duly made it's rounds, and brought his total investment in this promising enterprise up to five hundred eleven dollars.

The Automatic Cash Register & Cheese-Cutter stock had given him a slight run for his money. In fact he had visited the plant in the city, and was shown a number of people who were rushing around with grease on their hands and green eye shades firmly fixed on their busy brows. He was also permitted to have a short visit with the secretary-and-treasurer in his private office, and smoked one of the latter's cork-tipped cigarettes. At this time he had taken five more shares of common stock—par value one hundred dollars, but would let the Doctor have it for eighty-seven fifty. The Doctor had only stood two assessments on this stock before he became suspicious. Yes, the Automatic Cash-Register & Cheese-Cutter investment had certainly given him a run for his money.

Then there was the Co-operative Pan Automobile Association. Five hundred dollars stock in this entitled each member to any make of car at cost, fifty per cent off on tires and gasoline, and free mechanics' service for five years. This the Doctor had considered an excellent bargain; and being in a hurry to go out in the country twelve miles he had rapidly closed the deal with the salesman before the latter might regret the generous business proposal.

A modest document devoid of golden seals and officious stamps reposed sedately among its gorgeous surroundings. This the Doctor recognized as the reliable old-line five-thousand-dollar life insurance

policy that had been his anchor to windward for many years. It looked at the time like a poor investment, and twenty years appeared a long way off. Now the twenty years was nearly expired; and a great wave of relief swept over the Doctor as he realized that here was at least one investment that had proven wise.

The Doctor slowly placed the papers back, mechanically brushed a fallen hair or two from the shiny coat sleeve, and rose to leave the bank.

Another individual had just entered and was engaged in unlocking a box much larger and heavier than the Doctor's.

This was his neighbor, Henry Perkins, whose investments had been notoriously prosperous and who had never been accused of profligacy. By a system of questionable business deals, principally among relatives, he had managed to get hold of considerable land which had increased in value till Henry was one of the county's richest men. He had no recreation except making money; no hobby except to keep it. Music, nor art, nor sports, nor pleasure, had formed any place in his life.

The Doctor sank back in the comfortable chair, and surveyed the situation.

Here he was at the age when the shadows of life were lengthening; when he no longer felt the call of ambition to go forth and battle, and where he had not provided for that time that would inevitably come when he could follow his work no longer. It seemed that he must be classified as a failure.

In contrast he was looking at a man, Henry Perkins, whose natural abilities were limited, whose personality was not attractive, but who in the course of a lifetime had become a financial success as a business man.

As the Doctor mused he settled lower in the chair, and hardly heard the side-door softly open to admit an aged person with a scythe dangling over his shoulder.

"Old man Haynes come to mow the yard," he made mental note.

But no, this was not Haynes, although the face was wonderfully familiar. This must be that famed reaper whose picture he had so often seen, and whom he had every reason to believe made only one visit to each individual.

The old man unslung the scythe, ran his thumb along the edge with an approving gesture, and prepared to speak.

Perkins had also noticed the intruder, and had ranged himself alongside the Doc-

tor as though attempting to unite against the common foe.

"You gentlemen, I see, recognize me and naturally suppose I am on one of my reaping excursions," said the elderly one. "You are right. But if you will permit I will explain the recent innovation we have installed in our department. Heretofore we have placed more stress on actual age. The hoary heads have been the ones to feel my keen blade. The trembling step, the toothless gums, the halting, dribbling vesical function, the endocrineless bankrupt—these were the ones I followed with patient step.

"All this has changed. Our present system, lately installed, demands that years shall have no consideration in determining food for our sickle. Instead, usefulness and uselessness shall be the guides that point out the ones who shall remain or be eradicated. In what other condition, I ask you, do we cut out the grain and leave the chaff? From henceforth our plan will follow the modern one of cutting out the failures, and leaving the useful."

The Doctor tried to swallow the lump that came up in his throat, for he knew whose ox was about to be gored. Mr. Perkins smiled complacently, and incidentally rattled some silver in his vest pocket. This was calculated to call the attention of the reaper to the fact that as a gatherer of the world's goods he had been a success. The Doctor guiltily shoved away from sight the little black box which contained his investments.

"I will now ask you each to show cause for further encumbering the earth. Perkins, you may state your case."

Perkins proudly drew a key from his pocket, opened his box, and displayed to view money, bonds, certificates and mortgages. The questioner picked one of the papers up at random and glanced at it. It was a mortgage secured by a three-room home belonging to the Widow Smith. Extra chattel security of two cows also protected the real estate mortgage, and made the two hundred and fifty dollar loan safe many times over.

"You play the game safe," he said to Perkins. The latter smiled his appreciation.

"How do you and this lady stand, Doctor?"

"She has owed me fifty dollars for ten years, but has never been in shape to pay it," the Doctor answered. "But I'll get it some time," he hastened to add.

The scythe man growled something in-

articulate, and the Doctor ducked, expecting to hear the swish of the weapon.

"Let's look over the rest of your stuff," the grim one said to Perkins. As each paper and document was inspected, secured and re-secured, and as each individual signing these was on inquiry admittedly a debtor of the Doctor, the latter gave up hope.

"You grade very low in business acumen," the scythe man said.

The Doctor gulped. Perkins glowed with pride.

"However, that is only two points out of the hundred. We grade fifty on charity, twenty-five on honesty, trustfulness and reliability, the balance of twenty-three points is divided among other graces and virtues. The Doctor has fallen down on thrift; in fact he rates financially as incompetent. On other lines he grades well, and must be classified at least as not entirely useless. Perkins has made his total of two per cent in the one thing. On all others he is found lacking, and therefore must be classified as a failure, and unfit to further litter up the earth. I will at this time trouble you for your head, Mr. Perkins," and with a dexterous short-arm swing he neatly decapitated Perkins, and with so little disarrangement of feature or expression that the glow of self-satisfaction could still be plainly seen on Perkins' face as it was carefully packed away in the hunting coat the reaper wore.

The Doctor gasped and felt a sudden faint coming over him. His knees sagged and he slipped to the floor with a loud thud.

When he opened his eyes the man with the scythe who had Perkins' head in his pocket was gone, as was also the corpus delicti. Nothing was in sight but the Doctor's little black box which contained his life investments.

The Doctor smiled foolishly, rubbed the drowsy eyes, yawned, and tenderly put the little black box back in its place among the many other little black boxes.

As he left the bank he met a prosperous individual coming in.

"Good morning, Doc," said the man.

"Good morning, Mr. Perkins," replied the Doctor.

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If you expect to change your location please send your new address to the Journal office. It will save time and trouble for us and for the post office.

A History of the Leavenworth County Medical Society

J. L. EVERHARDY, A.M., M. D.
Leavenworth, Kan.

Read before the Leavenworth County Medical Society, May 4, 1925.

The medical profession of Leavenworth county has a larger span of activity than any other of the learned professions. The physician came with the troops located at Cantonment Leavenworth, now Fort Leavenworth, in 1827. The first medical officer there was Assistant Surgeon Clement A. Finlay. This record is taken from the archives of the Station Hospital of Fort Leavenworth. The physician has been active at the Post in an unbroken line of succession from 1827 to the present day. In 1854, when Leavenworth and Kickapoo were founded, Dr. G. Magruder and Dr. Samuel Phillips were on duty at Fort Leavenworth. The first physician of the new townsite of Leavenworth was Dr. Charles Leib, who had an office in the "Big Tent" north of the elm tree at Levee and Cherokee Street. Five physicians were included in the original Town Company. Among them were Doctors Magruder, Samuel Phillips and S. F. Few. The latter was for a long time City Physician in after years. Other early day physicians in Leavenworth were Doctors Dyer, W. S. Catterson, Levi Houston, John Harvey Day, S. F. Norton, James Davis, J. M. Bodine, Tiffin Sinks, Aaron G. Chase and John P. Koentz.

Dr. H. B. Callahan located here in 1856, and after a temporary absence in Platte City, Missouri, relocated in 1866. He died in his office in 1896. The wonderful growth of Leavenworth spread afar and attracted the following physicians, who permanently settled here in the years mentioned: Drs. M. S. Thomas, 1856; T. J. Weed, 1857; J. L. Wever, 1859; S. W. Jones, 1859; Margaret Burdell, 1861; John McCormick, 1862; A. C. Van Duyn, 1865; J. W. Brock, 1865; W. B. Carpenter, 1866; J. J. Edic, 1869; and S. F. Neely, 1869. They were persistently and consistently the real representatives of the healing art of Leavenworth for a generation and borned many of the good people of Leavenworth, who are now rearing its third generation.

The activity of these physicians is still remembered by many of the present-day adult population of Leavenworth. When they became older their work was continued by such men as Drs. D. W. Thomas, B. E. Fryer, L. K. Hunter, W. J. Van Eman, J. A. Lane, W. W. Walter, W. R.

Van Tuyl, C. C. Goddard, J. L. Fryer and S. B. Langworthy. From the foregoing, some of whom have long since ceased their labors, the present medical profession of Leavenworth county has inherited a reputation of eminent skill and ability. We are grateful to them for our heritage. We hold them aloft in our esteem, respect and veneration. In cherishing the memory of their success, sacrifices and arduous work for humanity, the medical profession of today is sensible of its duties to them and we are resolved to uphold their high ideals in promoting the progress of medical science.

Other physicians located here in the years mentioned: Robert Aikman, 1865; Robert J. Brown, in 70's; John T. Carpenter, 1865; S. D. Coffin, in 60's; Francis M. Downs, 1876; Dr. Eddy; W. B. Gibson, 1865; Robert S. Gabby, 1857; Thomas Hamill, 1865; T. H. Hammond, 1878; Eliza K. Morgan, 1882; S. A. Marshall, 1856; D. L. Magruder, 1880; M. R. Mitchell, 1868; John G. Miller, 1858; S. H. Oliphant, 1855; E. D. F. Phillips, 1876; L. P. Pad-dock, 1867; G. J. Park, 1855; J. J. Thompson, 1855; H. D. Tuttle, in 60s'; F. Thompson, 1868; S. F. Taylor, 1880, and L. V. Urton, 1865.

Kickapoo, while it was contending with Leavenworth for supremacy, numbered among its population Drs. D. A. Crane, H. B. C. Harris, Brownfield, Earle and Hathaway. Dr. T. H. Hathaway came in 1878. As the rural portion of the county was settled by the pioneers smaller towns also grew up. Dr. T. G. V. Boling located in High Prairie in 1865. He was a member of the legislature for a number of years. He was joined later in 1876 by Dr. James Hutchinson. Dr. William B. Wood came to the Springfield settlement in 1855 as a youth, and after graduation in 1875 practiced there. Dr. J. W. Warring has been in active practice at Linwood since 1870. Dr. W. J. Van Eman started his professional career at Tonganoxie in 1879 and moved to Leavenworth in 1881. He died an untimely death from blood poison in 1901. Dr. R. F. Slaughter of Tonganoxie, who died in March, 1921, dated back to 1873. Dr. T. C. Craig had been at Easton since 1866 before he retired and died there only recently. Lansing has had a number of physicians temporarily located there as prison physicians, one of whom was Dr. George F. Nealley, and who became a permanent resident of Lansing in 1883.

Dr. Aaron G. Chase was born in Cam-

bridge, N. Y., March 16, 1840. He graduated from the Cincinnati College of Medicine and Surgery in 1860. He was in the U. S. Army three years and saw service as a surgeon of the 32nd Ohio Vol. Inf., being discharged for physical disability due to rheumatism. In February, 1867, the young physician landed in Leavenworth and remained a few months when he located at Easton, a thriving town on the trail to Fort Riley. He remained here until 1876 and moved to Milwood. In 1904 he removed to Easton where he died December 30, 1908. He edited *The Kansas Farmer* from 1868 to 1871. Dr. Joseph Schenk was at Fairmount many years.

Dr. Whiteside was a physician and civic leader in old Delaware, a town east of Lansing. There is not a doctor now left at Delaware.

The outstanding historical character of the Leavenworth county medical profession is Dr. Samuel Phillips, who was a contract surgeon at Fort Leavenworth before coming to Leavenworth in 1857, where he had his first office at the southeast corner of Fifth and Kickapoo streets. In 1865 he volunteered to go to Fort Riley, where cholera was raging and where Major E. A. Ogden was constructing new buildings. The surgeon at Fort Riley had fled with his family to St. Mary's Mission to the Pottawatomie Indians conducted by the Jesuit Fathers, now known as St. Mary's College, a superior school for boys. Dr. Phillips has the credit of checking the ravages of cholera at Fort Riley. On August 3rd, 1855, fifteen people died, including Major Ogden. Dr. Phillips died at Leavenworth at the age of 90 years, October 31, 1919. His son, Daniel Russell, died January of the same year after thirty years of a busy practice in Leavenworth.

Dr. C. A. Logan was very prominent and successful in Leavenworth until he gave up his practice to become Minister to Chile. Prior to that he was a member of the Kansas legislature. Dr. J. W. Brock succeeded him and was active until he died on November 26, 1900. Dr. Brock was born June 1, 1830, at St. Clairsville, Belmont county, Ohio. He was surgeon of the 66th Ohio Vol. Inf., serving the entire period of the war. He was badly infected in the left hand at Peach Tree Creek before Atlanta and lost the left index finger. He was entirely devoted to his professional life and loved fine horses. He was the preceptor of Drs. C. C. Goddard, Squire Taylor, Allie Davis and J. L. Everhardy.

Dr. Koentz, of Onaga, Kan., tells of his father, Dr. John P. Koentz, having a patient come into his office on lower Shawnee street for the extraction of a tooth. The stranger wore a heavy beard and had his pants tucked in his boots, and had walked into Leavenworth. As the doctor was about to draw the tooth his patient laid upon a table a large revolver, threatening to kill Dr. Koentz if the operation proved painful. That was in 1855. The patient later became one of the most prominent pharmacists of Kansas City, Mo.

Dr. B. E. Fryer was an eminent specialist on the eye and ear. After his retirement from army service he practiced in Kansas City, Mo., where he recently died, beloved and honored by all. His son, Dr. J. L. Fryer, was for many years surgeon of the National Military Home in this county. During the World War he was stationed at Fort Leavenworth as oculist at the Post Hospital with rank of captain. He died at the age of 57 years on January 16, 1924. His wife was Miss Corina Cook, daughter of Governor S. G. Cook of the National Military Home.

Col. F. C. Craig of the Medical Corps at Fort Leavenworth is an accepted authority of international reputation on serology and malaria and has written several books on these subjects. He is a prolific writer and appears as the author of many articles in our medical journals. During the World War he was in charge of the Yale laboratory for instruction of the young men enlisted in the Sanitary Corps, and was later stationed at the Army Medical Museum in Washington.

The United States Sanitary Commission established in Leavenworth in 1861 a general supply depot of sanitary stores for hospitals and armies west of Missouri. From here supplies were forwarded to the far West and all points in Kansas as far south as Fort Scott. Material aid was given to the needy at Westport after Price's raid in October, 1864.

In 1863 the United States Military Hospital was a frame structure on the northeast corner of Third and Seneca streets. Dr. S. B. Davis was the medical officer on duty.

St. John's hospital was opened in March, 1864, as a general hospital by the Sisters of Charity. It was enlarged in 1911 to its present capacity of seventy beds. Cushing hospital was converted from the Home for the Friendless in 1893. A new addition to the present building is now proposed.

The city and county hospital on Shawnee street west of Broadway was in charge of Dr. H. Buckmaster in 1866. His son practiced in New Ulysses, Kan., and died there recently. The old Poor Farm was abandoned in 1914 and its inmates transferred to the new County Hospital, which was formerly the Kansas Orphan Asylum and later the Leavenworth Hospital.

The Homeopathic Free Dispensary was organized January 26, 1866, and was located at 29 Shawnee street. It was supported by a society of citizens and furnished free medical service and medicines to the poor. It was attended by Dr. Martin Mayer.

In the early days Leavenworth was the medical center, as well as the commercial metropolis of the West. The Leavenworth Medical and Surgical Association was active from 1862 to 1865 with a membership including Drs. Levi Houston, C. A. Logan, Tiffin Sinks, J. P. Earickson, George E. Buddington, A. Bowlby, O. P. Barbour and others. The Leavenworth Medico-Chirurgical Society was organized April 14, 1865, with Dr. O. P. Barbour president and Dr. W. B. Carpenter secretary.

Four meetings of the Kansas State Medical Society have been held in Leavenworth. Six Leavenworth physicians have held the office of president of the society. A meeting of the state society will be held in Leavenworth whenever the hotel accommodations are adequate.

The Homeopathic Society of Kansas met in Leavenworth on April 14, 1869, with Dr. J. J. Edic of Leavenworth as secretary.

The Leavenworth Medical Herald, a quarterly, appeared June 1, 1867, and was edited by Drs. C. A. Logan and Tiffin Sinks; later by Dr. J. W. Brock.

In 1859 there were in Leavenworth ten drug stores, four midwives and thirty-five physicians; in 1868, ten drug stores, fifteen nurses and forty-one physicians; in 1925, there are fifteen drug stores, twenty-eight nurses, four hospitals and twenty-five physicians.

The following members of the Leavenworth County Medical Society were in the army during the World War: Drs. A. R. Adams, C. E. Brown, W. B. Coe, J. T. Faulkner, J. L. Fryer, J. H. Langworthy, C. J. McGee, Leroy Brown, Alexander Haggart, J. F. McGill and J. Barker.

Dr. L. J. Swan, County Physician of Lansing, Kan., was the Medical Examiner of Leavenworth County Local Draft Board. Gov. Arthur Capper appointed Dr.

J. L. Everhardy and Dr. Stewart McKee to assist him. The Medical Advisory Board of District No. 2, comprising Jefferson and Leavenworth counties, met daily in 1918 in the office of Dr. F. J. Haas. The long and spacious corridor of the Masonic Hall was used as a waiting room and furnished a very convenient assembly room for the drafted men. The use of this hall was tendered the government by the Masons without charge or any expense. The officers were: Dr. C. C. Goddard, president; Dr. S. B. Langworthy, vice-president; Dr. J. L. Everhardy, secretary. The board was fortunate in having the services of Dr. F. J. Haas, Dr. W. B. Myers and Dr. S. L. Axford.

The Leavenworth County Medical Society includes every physician in Leavenworth county and is a 100 per cent society. All members are also members of the Kansas Medical Society and nearly all hold membership in the American Medical Association. The officers of the Leavenworth County Medical Society are: Dr. S. L. Axford, president; Dr. Stewart McKee, vice-president; Dr. J. L. Everhardy, secretary-treasurer. The Censors are Drs. C. J. McGee, H. J. Stacey and F. J. Haas.

During the past year the Leavenworth County Medical Society has been heavily bereaved in the deaths of Dr. Fryer, already noted; Dr. S. B. Langworthy, and Dr. C. C. Goddard, all of Leavenworth.

Dr. S. B. Langworthy died at the age of 66 years on April 15, 1924, of heart disease. His pastime was horticulture. For many years he was president of the Leavenworth City School Board. At the time of his death he was president of the Cushing Hospital Faculty and vice-president of the Leavenworth County Medical Society, having served as its president several terms.

Dr. C. C. Goddard died of apoplexy on January 28, 1925. He had been president of the Kansas Medical Society in 1908, as well as president of the Leavenworth County Medical Society several terms. He was the present incumbent of the office of Councilor of the second district of the Kansas Medical Society. He conducted the Evergreen Place Hospital for many years and maintained a very high standard in the conduct of his institution. The hospital is still operating. Dr. Goddard was 75 years of age when he died.

Dr. J. T. Faulkner, of Lansing, died in 1922. He was a bright young man. He

was prison physician at Lansing in 1913 and 1914.

Dr. J. W. McCully practiced at Basehor a short time in 1921 and died there after winning the confidence and esteem of the good people of Fairmount township.

Dr. E. S. Wood was at Jarbalo for almost twenty-five years and had a wide and busy practice. He was compelled to give up his post and move to Colorado on account of asthma.

The county of Leavenworth is more hospitalized than any other in Kansas and is unique in the entire country in the variety of hospitals. The capacity of the hospitals is given as follows:

Cushing Hospital	30 beds
Elmwood Hospitals	30 beds
Evergreen Place Hospital	
(Goddard's)	50 beds
St. John's Hospital	70 beds
County Hospital	70 beds
Kansas Prison Hospital	44 beds
Kansas Industrial Farm Hospital,	16 beds
National Military Home Hospital,	525 beds
United States Disciplinary Bar-	
racks Hospital	150 beds
United States Station Hospital...	150 beds
United States Prison Hospital...	122 beds

The names of physicians of Leavenworth county who are in active practice, together with address and year of graduation, are as follows:

Easton, Clint A. Laffon, 1907.

Basehor, O. W. Austin, 1921.

Jarbalo, E. S. Bamford, 1889.

Lansing, S. L. Axford, 1902.

Leavenworth: Alonzo R. Adams, 1904;

Charles E. Brown, 1904; Wilbur A. Baker, 1916; G. Ralph Combs, 1902; P. W. Darrah, 1898; J. L. Everhardy, 1897; Frederic J. Haas, 1907; J. L. Hamilton, 1880; S. N. Jackson, 1894; Cyrus D. Lloyd, 1898; J. H. Langworthy, 1907; Charles J. McGee, 1902; Stewart McKee, 1895; J. D. Miller, 1898; C. M. Moates, 1888; Frank M. Morrow, 1905; James W. Risdon, 1905; Joseph E. Skaggs, 1915; Andrew J. Smith, 1894; H. J. Stacey, 1896; D. R. Sterrett, 1907; A. L. Suwalsky, 1901; L. J. Swann, 1908; C. K. Vaughn, 1898; A. F. Yohe, 1888.

Linwood, H. E. Vannoy, 1907; J. W. Warring, 1873.

Tonganoxie, W. B. Coe, 1896; J. M. Mott, 1921.

Fort Leavenworth, on duty at the Station Hospital: Lieut. Col. Reuben B. Miller, Major Harold W. Jones, Major Adam E. Schlanser, Major Oscar G. Skelton, D.C.,

Major William O. H. Prosser, Major Bertram H. Olmsted, Captain William S. Culpepper, Captain Frank McA. Moose, Captain Wilmer C. Dreibelbies, Captain Clement J. Gaynor, D.C.

On duty at United States Disciplinary Barracks: Major Edgar King, Captain Stanley G. Odom, Captain Lawrence B. Pilsbury, Captain Arthur W. Drew.

On duty as instructors and students: Major Herbert C. Gibner, Major Albert S. Dabney, Major Ralph G. DeVoe.

National Military Home: Surgeon Robert Conrad, Asst. Surgeon Warren M. Royal, Asst. Surgeon Arthur W. Bartel, Asst. Surgeon Oliver A. Menges, Asst. Surgeon Frederick I. Yates, Asst. Surgeon Alvah S. McClain, Asst. Surgeon J. S. Rush-ton, Asst. Surgeon Marcus A. Newell.

Dr. Newell is leaving May 15th and his place will be taken by Dr. Samuel A. Crowe. Practically all of the officers are members of component societies in their various home states and also of the American Medical Association.

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HISTORY OF THE KANSAS MEDICAL SOCIETY

(Continued from April)

The annual meeting in 1877 was held at Lawrence on May 9. Twenty-eight members and four honorary members answered the roll call. Dr. H. S. Roberts of Manhattan presided. At this meeting seven new members were admitted. Several amendments to the by-laws were adopted. The first of these provided that the annual dues should be one dollar. The second eliminated a clause permitting the admission to membership of under-graduates who had had three years of practice.

Dr. Stormont, who had served as Secretary of the Society since 1866, asked to be released from that duty and the following resolution was adopted. "Resolved, That in acceding to the request of Dr. Stormont to relieve him from further service as secretary, we desire to bear testimony to his faithful and efficient service for the last eleven years, and to express the hope that he will in no wise relax his efforts in promoting the welfare of this Society, and his interest in its proceedings."

Dr. W. L. Schenck was elected president; Dr. C. C. Furley and J. H. Stuart, vice-presidents; Dr. F. D. Morse, secretary, Victor Blart, assistant secretary, and W. W. Cochrane, treasurer.

The annual meeting was held in Dr. Stormont's Hall in Topeka, May 8 and 9,

1878. There were twenty-seven members and two honorary members answering at roll call. During the two days, eight new members were admitted.

Several resolutions were adopted during this meeting. The first one reads as follows: "Resolved, That a committee of three be appointed to make tests of the different forms of pills that may come under their notice, and report at the next annual meeting."

A motion was made and adopted that a committee be appointed to memorialize the State Legislature on State Hygiene.

The following resolutions were adopted and as subsequent events will show, must have carried some weight.

"Resolved, That we, the members of the medical association of the state of Kansas, memorialize the State Legislature to pass a law compelling all persons practicing medicine in this state to have a diploma, or a certificate from a medical board appointed for that purpose."

"Resolved, That a committee be appointed by the Chair for that purpose."

"Resolved, That all physicians be requested to use their influence as far as possible with the legislature to this effect."

Resolutions tendering thanks and compliments to the various pharmaceutical and instrument firms having exhibits at the meetings were also adopted.

Dr. C. C. Furley, Wichita, was elected president; Dr. J. H. Stuart and J. M. Linley, vice-presidents; F. D. Morse, secretary; W. B. Gibson, assistant secretary, W. W. Cochrane, treasurer.

The annual meeting in 1879 was held in Atchison on May 13, 14 and 15. Forty-seven members and two honorary members were present at roll call. Ninety-eight new members were admitted. This meeting may be regarded as one of the landmarks in the history of the Society, following so closely upon the enactment of a law regulating the practice of medicine. This act was approved February 27, 1879, and while not included in the report of the proceedings of the Society, in order to make clear the events which followed, it is advisable to reproduce the text of this law at this time.

AN ACT TO REGULATE THE PRACTICE OF MEDICINE IN THE STATE OF KANSAS

SECTION 1. Every person in this state practicing medicine or surgery, in any of its departments, shall possess the qualifications required by this act. Every such person shall present his diploma to one of the boards of examiners herein named, to-

gether with the affidavit mentioned in section four of this act. If the board shall find all the facts required to be stated in said affidavit to be true, the board of examiners shall issue its certificate to that effect, signed by a majority of all the members thereof, and sealed with the seal of the board, and such certificate shall be conclusive as to the rights of the person named therein to practice medicine and surgery in any part of this state.

SEC. 2. The Kansas Medical Society, the Eclectic Medical Society of the state of Kansas, the Homeopathic State Medical Society, corporations organized and existing under and by virtue of the laws of this state, or either of them, and no other corporation, society, person or persons, shall each appoint, annually, a board of examiners, consisting of seven members, who shall hold their office for one year and until their successors shall be chosen and qualified. The examiners so appointed shall go before some judge of the district court or probate judge of this state, and make oath that they are graduates of either the allopathic, eclectic or homeopathic schools, and that they will faithfully perform the duties of their office. Vacancies occurring in a board of examiners shall be filled by the society appointing it, by the selection of alternates, or otherwise. The boards of examiners now organized or existing or that may be hereafter organized, under and by virtue of their appointments by any of the societies mentioned in this section, shall continue to act as such boards until their successors are appointed at the annual election.

SEC. 3. The boards of examiners shall organize within three months after the passage of this act. They shall procure a seal, and receive through their secretary applications for certificates and examinations. The president of each board shall have authority to administer oaths, and the board take testimony in all meetings relating to their duties. They shall issue certificates to all who furnish satisfactory proof of having diplomas or licenses from legally chartered medical institutions in good standing. They shall prepare two forms of certificates, one for persons in possession of diplomas or licenses, the other for candidates examined by the board. They shall send to the county clerk of the several counties of this state a list of all persons receiving certificates. In selecting places to hold their meetings they shall, as far as is reasonable, accommodate applicants resid-

ing in different sections of the state, and due notice shall be published of all their meetings. Certificates shall be signed by all the members of the board granting them, and shall indicate the medical society to which the examining board is attached. The board shall meet within thirty days after application made to its secretary by any person desiring examination.

SEC. 4. Said board of examiners shall examine diplomas as to their genuineness, and if the diploma shall be found genuine, as represented, the secretary of the board of examiners shall receive a fee of five dollars from each graduate or licentiate, and no further charge shall be made to the applicant; but if it be found to be fraudulent, or not lawfully owned by the possessor, the board shall be entitled to charge and collect twenty dollars of the applicant presenting such diploma. The applicant shall accompany his diploma with an affidavit stating that he is the lawful possessor of the same; that he is the person therein named; that the diploma was procured in the regular course of medical instruction, and without fraud or misrepresentation of any kind, and that the medical institution granting the diploma had at the time of the granting the same a full corps of medical instructors, and was at the said time a legally incorporated institution, actually and in good faith engaged in the business of medical education, and in good standing as a medical institution; and that the applicant had complied with all the requirements of said institution. Such affidavit may be taken before any person authorized to administer oaths, and the same shall be attested under the hand and official seal of such officer, if he have a seal. In addition to such affidavit, the board of examiners may hear such further testimony as in their discretion they deem proper to hear as to the verification of any such diploma, or as to the identity of the person named therein, or as to the manner in which any such diploma was procured, and if it should appear from such testimony that any fact stated in said affidavit is untrue, the application of such person for a certificate shall be rejected. None of said boards shall entertain an application which has been rejected by another of said boards, nor shall any rejected application be renewed until at least one year after the action of the board rejecting the same.

SEC. 5. All examinations of persons not graduates shall be made directly by the board, and the certificates given by the

boards shall authorize the persons to practice medicine and surgery in the state of Kansas.

SEC. 6. Every person holding a certificate from a board of examiners shall have it recorded in the office of the county clerk of the county in which he resides, and the recording of the same shall be indorsed thereon. Any person removing to another county to practice shall procure an indorsement to that effect on the certificate from the county clerk, and shall record the certificate in like manner in the county to which he removes; and the holder of the certificate shall pay to the county clerk the usual fees for making the record.

SEC. 7. The county clerk shall keep in a book provided for that purpose a complete list of the certificates recorded by him, with the date of the issue and the name of the medical society represented by the board of examiners issuing them. If the certificate be based on a diploma or license, he shall record the name of the medical institution conferring it, and the date when conferred. The register of the county clerk shall be open to public inspection during business hours.

SEC. 8. Candidates for examination shall pay a fee of five dollars, in advance. The fees received by the board shall be paid into the treasury of the medical society by which the board shall have been appointed, and the expenses and compensation of the board shall be subject to arrangement with the society.

SEC. 9. Examinations may be in whole or in part in writing, and shall be of an elementary and practical character, but sufficiently strict to test the qualifications of the candidate as a practitioner.

SEC. 10. Each of said board of examiners may from time to time adopt such rules as may be necessary to the orderly conduct of all proceedings taken and had before it. It shall be the duty of the secretary of the respective boards to notify the secretary of all other boards provided for under this act of all applicants to whom licenses may have been refused, together with the reasons of such refusal of such boards.

SEC. 11. Any person shall be regarded as practicing medicine, within the meaning of this act, who shall profess publicly to be a physician, and engage in the practice of medicine, or who shall habitually prescribe for the sick, or who shall append to his name the letters "M. D."; but nothing herein contained shall be construed to prohibit gratuitous services, and this act shall

not apply to lawfully-commssioned surgeons of the United States army or navy practicing their profession within the limits of this state.

SEC. 12. Any person habitually practicing medicine in this state, without complying with the provisions of this act, shall be punished by a fine of not less than fifty dollars nor more than five hundred dollars, or by imprisonment in the county jail for a period of not less than thirty days nor more than one year, or by both such fine and imprisonment for such offense; and any person filing or attempting to file as his own the diploma or certificate of another, or a forged affidavit of identification, shall be guilty of a felony, and upon conviction shall be subject to such fine and imprisonment as are made and provided by the statutes of this state for the crime of forgery in the fourth degree: *Provided*, That no person who holds certificate heretofore granted by either of the societies mentioned in the second section of this act shall be compelled to procure a new certificate, or be liable to any penalty for failing to do so: *And provided further*, That the provisions of this act shall not apply to those persons who have been practicing medicine within this state continuously for five years prior to the taking effect of this act. When such persons have submitted proof of such continuous practice, as herein provided, a certificate shall be issued to them, as is provided for in section three of this act.

SEC. 13. Any person assuming to act as a member of a board of examiners under this act, or who shall sign, or subscribe, or issue or cause to be issued, or seal or cause to be sealed, a certificate authorizing any person to practice medicine or surgery in this state, except the person so acting and doing be appointed by one of the societies mentioned in section two of this act, or be authorized to do so by a board of examiners, appointed by one of said societies, shall be deemed guilty of a felony, and shall be punished by a fine of not less than five hundred dollars or by imprisonment in the state penitentiary for a period of not less than one year, or by both such fine and imprisonment.

SEC. 14. Should either of said boards issue a certificate to any person whose application for certificate has been previously rejected by another of said boards, within one year after the rejection of said application, then in such case the certificate is-

sued as aforesaid to such rejected applicant shall be null and void and of no effect.

SEC. 15. If any person not a graduate or licentiate of medicine has been unable to present himself for examination to any of said boards as provided in section one of this act, then in such case it shall be lawful for either of said boards, on good cause shown why said person was unable so to present himself for examination within the time limited in the fifth section of this act, to examine such person touching his qualifications to practice medicine or surgery; and if said examination shall be satisfactory to the board, it shall thereupon issue its certificate in accordance with the facts, and the lawful holder thereof shall be entitled to all the rights and privileges of graduates or licentiates to whom certificates have been issued under this act; but no such examination shall be had after the first day of April, eighteen hundred and eighty. This act shall have no application to any county in this state unless a member or members of one of the boards provided for in section two of this act, duly qualified, shall have held a meeting for examination of physicians within said county, nor shall it apply to any lady practicing midwifery.

SEC. 16. Every person who shall willfully and corruptly swear, testify or affirm falsely to any material matter, upon any oath or affirmation or declaration legally administered in any matter or proceeding before said board of examiners, or either of them, under the provisions of this act, shall be deemed guilty of perjury.

SEC. 17. This act shall take effect and be in force from and after the first day of June, eighteen hundred and seventy-nine. [Laws of 1879, ch. 122.]

During the morning session on the 13th, Dr. Stormont moved that the Chair appoint a committee of seven to nominate a Board of Examiners under the provision of an act passed by the last Legislature, entitled "An act to regulate the practice of medicine," and that this act and the report of this committee be made the special order for 7:30 p. m. Carried and the following committee appointed: Drs. Stormont, Fryer, Schenck, Morris, Baldwin, Shean, H. P. Woodward. At the proper time this committee reported the following nominations for the Board of Examiners: Drs. D. W. Stormont, Topeka; C. C. Furley, Wichita; S. F. Neely, Leavenworth; W. W. Cochrane, Atchison; R. Morris, Lawrence; C. H. Guibor, Beloit; G. W. Halderman, Paola. As

alternates, W. L. Schenck, Osage City; H. S. Roberts, Manhattan; G. R. Baldwin, Fort Scott; W. F. Osborne, Burlingame; T. Sinks, Leavenworth; G. Boyd, Newton; J. Leigh, Highland. The report was adopted.

There was much discussion of the merits of the law and finally a committee was appointed to present resolutions expressing the sense of the Society against the law. This committee reported as follows:

"Resolved, That in the opinion of the Kansas Medical Society the act to regulate the practice of medicine in the state of Kansas, approved February 27, 1879, is wholly inadequate to protect the people against empiricism and further legislation in this direction is needed."

The resolution was adopted.

At this meeting the following resolution was adopted without debate:

"Resolved, That the Kansas State Medical Society disapproves and condemns the use of all copyrighted pharmaceutical preparations."

All of the officers were re-elected for the ensuing year.

(To be continued)

R

UNIVERSITY OF KANSAS CLINICS

Orthopedic Clinic of Dr. James R. Elliott

ARTHRITIS OF THE FEET

Those suffering with inconvenience, early fatigue or pain in feet still remain an integral part of the patients seen by the orthopedist both in clinical and private practice. The writer is gradually coming to recognize an arthritic element in an increasing percentage of these cases. The feet are often the point of first symptoms, and the patient thinks his discomfort to be due to "fallen arches." Pes planus usually exists, and doubtless has been an important factor in causing the arthritic symptoms to localize in the feet. This unbalance results in postural strain, and trauma is produced in the articular surfaces of the feet, thus presenting a vulnerable point for invasion and localization of the toxins, or organisms floating in the blood stream. Many times, especially in girls, a knock knee is present, which further contributes to the unbalance and trauma. This condition may be found between wide age limits, but probably less frequently among the young.

Virtually all cases of painful feet are treated posturally, as some relief is likely to be obtained by relieving the unbalance and strain even though the chief source of

their discomfort be arthritis. If their pain is completely relieved in this way, arthritis is excluded in the differential diagnosis. When once recognized the treatment resolves itself into the usual search for, and elimination of the source. A blood picture is of course helpful, as in any infectious process. In young adults the tonsils are the most likely source. Venereal (gonococcus) infection must be kept in mind as a possible etiological factor. In patients who have attained or passed middle life the teeth are held to be increasingly important.¹ Definite progress has recently been made in the diagnosis of focal infections of the mouth. Teeth apparently x-ray negative have been demonstrated to be sources of infection. Areas from which teeth have been extracted, as long as twelve years previously, have positively been shown to be infected, and the symptoms for which cause was being sought have disappeared following the elimination of the infection.

Another condition which must be eliminated in the differential diagnosis is that of spur formation on the lower border of the os calcis, at the posterior point of attachment of the planter fascia. The treatment of this disorder has been surgical removal of the spurs. Hertzler² offers the opinion that the pain in these cases is not due to the spur, but to an inflammation of the deep calcanean bursa. Treatment of this condition also is operative. This type of case is easily differentiated by x-ray, and because of the definite localization of pain in the bottom of the heel, and the fact that complete relief is usually had when not weight bearing.

Case Reports: No. 1. P. O., female, age 16 years. First seen may 8, 1924. Had been having very disabling pain in both feet for four weeks. Was attending school and caring for small children. Left foot quite pronated, right moderately so, dorsiflexion of ankles, left 75 degrees, right 95 degrees. Pain in longitudinal arch and in right heel at the attachment of the tendo achilles. Tonsils very suspicious, teeth excellent. Logitudinal arches were supported. Seen again June 11, 1924, also June 23, 1924, improved but still having much pain. July 9, 1924, tonsils removed. Pain in feet entirely gone before patient left hospital. March 1, 1925. No recurrence of symptoms.

No. 2. E. R., female, saleswoman, first seen June 14, 1923. Had had trouble with feet for years. Marked exostosis left fifth metatarsal bone, slight on right, some en-

largement and irritation both first metatarsals, corns both fifth toes, marked callosities both forward plantar surfaces, transverse arches depressed, rather marked flattening of the longitudinal arches, pronation also marked. Case was treated posturally with much improvement, but failing of complete relief. Patient seen occasionally until February 18, 1924, at which time tonsils were removed, the writer simultaneously removing the large exostosis from the left fifth metatarsal bone. Patient was seen occasionally until August 27, 1924, at which time she was very comfortable. Seen by chance February 28, 1925. Feet have been symptom free for months.

No. 3. C. H. S., male, age forty years, factory branch manager. First seen March 8, 1924. Six weeks before patient first noticed a feeling of weakness in feet with slight pain on arising in morning, left more than right, raising onto toes caused sharp pain. Feet negative to examination. Treated posturally with partial relief of symptoms, but pain always returned with fatigue. May 20, 1924, five questionable teeth removed. May 26, 1924, seen at residence, all symptoms much exaggerated since extraction of teeth. This exacerbation subsided gradually. October 4, 1924, apparently all advantage gained by extractions was lost, taken to oto-laryngologist, who advised tonsillectomy, also bringing out fact that patient had a unilateral chronic suppurating otitis media. October 15, 1924, tonsils removed, and cultured for auto-genous vaccine. Live cultures killed all rabbits inoculated, hence no results of animal inoculation can be reported. Increasing doses of killed organisms were given intramuscularly. The fifth dose produced mild local and general reaction. The sixth dose produced a local and general reaction so severe that patient was confined to his room for three days. Some improvement in feet followed, inoculations were discontinued. Patient seen occasionally since, improvement has been slight. He has chronic constipation and observes that disability is greater when bowels are more sluggish. March 30, 1925, patient reports some improvement, but recent over exercise accompanied by a coryza has caused a return of symptoms much of the type and severity for which he originally sought relief. The ear still is suppurating, with little or no improvement since tonsillectomy.

Many more cases such as the first two might be reported, they are the rule. The

latter one is reported to illustrate the occasional failure to get results.

SUMMARY

Painful feet usually have as their etiology disturbed weight bearing or postural unbalance. Cases presenting for treatment, with or without symptoms of arthritis elsewhere are treated posturally as it should cure the postural cases and produce a certain degree of improvement in the arthritic cases. It is assumed that cases such as No. 1 where the eradication of symptoms is total and permanent that the primary focus has been removed and that no secondary foci have taken on the function of a primary one. In cases of the type of No. 3 it seems evident that the eradication of foci has not been complete as evidenced by the residual symptoms in the feet and the suppurating ear. Further treatment will be undertaken with a view to removing the now primary foci.

Arthritis of the feet is not uncommon, and it may be very disabling. Recognition of the cause and its removal contribute, not only to the patients comfort and enjoyment, but materially increases their producing power. These are the ultimate goals of the studies and efforts of our profession.

¹ As yet unpublished work of Dr. Haden, University of Kansas.

² Hertzler "Inflammation of the Deep Calcaneal Bursa." J. A. M. A., July 7, 1923.

R

Clinic of Dr. Frank M. Denslow

St. Margaret's Hospital

GENITO-URINARY SURGERY

We have here Mr. C. Y., age 20, by occupation a laborer, who complains of frequent, urgent and painful urination. The duration of his trouble has been about two years, and the onset was gradual. The frequency is now about every fifteen minutes. There is no venereal history and no previous illness of any consequence. He appears fairly well nourished and healthy. There have been several attacks of hematuria.

One month ago the right epididymis became quite swollen and painful, rather suddenly. This acute swelling has since partly subsided, leaving the epididymis large and hard throughout—not nodular, though you can see that the upper pole projects somewhat. It is not very tender. The vas deferens is increased in size and is hard, but the spermatic cord as a whole is not thicker than usual. The epididymis is not adherent to the skin. Per rectum, the prostate reveals some small, hard, nodules—moderately tender. Nothing ab-

normal was found in a routine examination of the chest. There is no tenderness over the kidneys. The morning temperature is usually subnormal, and the afternoon temperature about normal. The urine contains numerous blood and pus cells, but four careful examinations of the stained sediment have not revealed any tubercle bacilli or any other organisms except an occasional *B. coli*.

From the clinical findings and the history we have diagnosed this case as one of tubercular prostato-epididymitis. The absence of gonorrheal history and findings is a strong factor. The peculiarly hard, slightly tender epididymis in connection with a nodular prostate in a young man of twenty and the absence of any microorganisms in the urine pus are confirmatory of this diagnosis. If we could find tubercle bacilli in the sediment of the urine or in the expressed prostatic-vesicular secretion it would be a very valuable finding, but the absence of any organisms is nearly as valuable, as a diagnostic sign.

This patient has not been cystoscoped and we have no intention of cystoscopying him. Cystoscopy in such cases as this is harmful because of the trauma, and it reveals very little. We assume that the kidneys are not involved because there is no tenderness of either kidney and no fever. It may become advisable later to catheterize the ureters, but at the present time it is our job only to rid this patient of as much tubercular tissue as we can; namely, the right epididymis. In addition, we may, if indicated, divide the left vas, to prevent infection of the left epididymis. As to the tuberculous prostatitis, this condition is not amenable to surgery, and we must depend upon building up the patient's resistance to control that part of his trouble.

The field of operation is prepared by the successive use of soap and water, solution of bichloride of mercury and alcohol. All of these substances penetrate the rugae of the scrotal integument better than tincture of iodine and are not so irritating. Towels soaked in the bichloride solution are placed beneath the scrotum and around the operative field. Over these are the regular table dressings.

Our incision begins just above the external inguinal ring and runs about two and one-half inches down onto the scrotum. The wound is deepened to expose the cord and the testicle and they are removed from their bed and laid out upon the bichloride towel. Inspection and palpation confirm

our pre-operative observations. The epididymis is thickened and hard throughout and the process has apparently also involved the contiguous testicular substance, so I had better remove both testicle and epididymis. First, I separate the vas from the remainder of the cord. It is thick, stiff and brittle. It has broken here almost like a stick when I tried to free it from the tissues of the cord. I free the vas up for about two inches and clamp and cut it at the lower end, above where it is broken. The upper end is left long enough to project through the wound for an inch or so.

My next step is to inject the vas and the corresponding vesicle with a suspension of five grains of iodoform in two or three c.c. of sterile glycerin. Part of this suspension of course is immediately ejected into the urethra through the ejaculatory duct, but we hope that at least a part of it may be retained in the vas and vesicle. We now ligate the cord and remove the testicle and epididymis.

While my assistant is closing the wound I shall cut the specimen which we have removed, longitudinally through the testicle and epididymis for your inspection. You can see that the epididymis is deeply injected with hemorrhagic infiltration and that it and the vas are very hard and that it is very closely attached to the testicle. As I cut it you can see that it is infiltrated with tuberculous material, and that there are some pinhead sized tubercles in the testicle itself. There is no fluid pus here, though I rather expected to find the center of this epididymis broken down, as they usually are when of this size.

The wound has been sutured, with the stump of the vas protruding nearly an inch at the upper end, fastened into the wound. This method adequately takes care of whatever drainage there may be from the vesicle. The protruding stump withers off in a few days. The method commonly used of pulling out as much of the vas as possible before cutting it, may result in inaccessible drainage abscesses forming down behind the bladder, whereas, a secondary abscess in a case like this will form right here beneath the skin, where we can get at it. I have seen examples of both these conditions and can bear witness that the former is infinitely more troublesome.

We must now consider what will happen to the other epididymis and testicle. In the majority of these cases the remaining epididymis later becomes infected. Where there is bilateral involvement of the pros-

tate, as in this case, it is almost certain. This eventuality may be avoided by division of the vas on the remaining side. This patient took a sensible view of the matter and gave us permission to do this. Were the diagnosis of the removed tissue not so certain, I should await a report from the pathologist and later do it under local anesthesia. The prostatic condition precludes procreation and the single healthy testicle will take care of his endocrine needs, so he has much to gain and little to lose by cutting the left vas.

The operation itself is a very simple one. While I am changing my gloves the assistant will sterilize the left side of the scrotum anew. With the left thumb and index finger the left spermatic cord is pressed, and the vas separated and brought up to the skin, where it and the scrotal wall over it are caught up together with an Allis clamp and held in a fixed position. An incision a half inch long serves to expose the vas, strip it and bring it out of the wound for about an inch. The lower end of the vas is tied, cut and dropped back, while the upper end is left out of the wound and fastened by suture into the skin. We close the skin wound with a couple of sutures. This method discourages the regeneration of the cut vas, which is liable to occur if a section is merely cut out and both ends dropped back. The exposed portion of vas withers and drops off in a week or so. That finishes our operation. Are there any questions?

Question: Did you say that tuberculous epididymitis might come on suddenly with much pain and swelling, simulating a gonorrhoeal epididymitis? I have understood that it is an insidious process and very chronic.

Answer: Both of your statements are true. It may come on either very acutely or very insidiously. It may be difficult to distinguish the acute type from gonorrhoeal epididymitis. In general it is not quite so painful. The acute cases are probably always extensions of tuberculous processes in the prostate and in the seminal vesicles by way of the vas deferens. This case is such a one. The slow and insidious cases are most likely blood-borne and primary in the epididymis, as far as the genito-urinary involvement is concerned. Cases that begin acutely usually subside in a few weeks to the condition we found today.

Pathologic report. Tuberculous epididy-

mitis, with beginning involvement of the body of the testicle.

R

Medical School Notes for May

The Medical School faculty will be well represented at the Annual Congress of American Physicians which is being held in Washington, D. C., this month. Dr. R. H. Major will read a paper on "The Relationship of Methyl Guanidine to Arterial Hypertension." Dr. Frank C. Neff will read a paper on "Congenital Duodenal Bands," and Dr. R. L. Haden will read a paper on "Pernicious Anemia."

Dr. R. H. Major has been awarded the J. D. Griffith prize for the best paper read before the Kansas City Academy of Medicine during the past year.

Dr. N. F. Ockerblad is in the hospital convalescing from an appendectomy.

The nurses' recreation hall is now finished and in daily use. It is so arranged that it can be used for basket ball or dancing and at one end is a stage so that plays may be put on. The formal opening will be this month when the under-graduate nurses are to give a banquet and dance for the graduating class. It is planned to make this an annual affair.

Dr. Chas. S. Huffman will deliver the address at the nurses' graduating exercises this month.

Dr. Auchard of Irving, and Dr. Cook of Augusta, were recent visitors at the medical school.

R

Annual Health Education Conference

At the invitation of the University of Chicago, the fourth annual working conference in health education is to be held June 22 to 26, inclusive, at Chicago, Ill. This conference is called by the Health Education Division of the American Child Health Association and will be limited to 150 participants.

The conference discussion will center around "The Training of Teachers for Health Education." Consideration will be given not only to the health program in teacher training institutions, but also to the extension courses in health education for teachers in service. The health program of secondary schools in its relation to the teacher training problem will be discussed.

Registration for the conference must be made by June 1. Address Emma Dolfiner, 370 Seventh Ave., New York City.

THE JOURNAL

of the

Kansas Medical Society

W. E. McVEY, M.D. - - Editor

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THE TOPEKA MEETING

The fifty-ninth annual meeting of the Kansas Medical Society which has just closed will stand out as one of the best in the Society's history. The attendance was large, considerably over 400, keeping well up with the attendance at Wichita last year and at Kansas City the year before that.

The program was generally regarded as better than usual, it was so intensely interesting that the seats in the hall were continuously filled. The discussions were concise and to the point so that little time was lost in verbiage and repetition. Every paper on the program was on hand. The invited guests were all in attendance and their addresses received close attention.

Of course it is understood that the members attend these annual meetings for the benefit they may derive from the scientific program, and incidentally to attend to the Society's business affairs; but, while interesting and important, those things alone tend to weary the mind and some kind of relaxation is needed. The committee on arrangements of the Shawnee County Society departed from the time-honored custom and in place of a many course banquet followed by displays of fervid oratory, they entertained the visitors with fanciful

and frenzied displays of anatomy followed by a dutch lunch. From the expressions heard at the time and subsequent thereto it may be said that the entertainment was quite satisfactory.

As usual the business of the Society occupied considerable time and, as usual, some matters failed to receive the attention their importance deserves. Unless the Society reverts to its ancient status as a scientific body exclusively, some different plan must be devised for our business sessions so that the affairs of the Society may be discussed intelligently, so that proposals submitted for the betterment of the profession may receive the consideration they deserve.

It was thought, in arranging the program for this meeting, that in one full evening the House of Delegates could finish all the business in hand except the election of officers which need take but little time on the morning of the last day. In spite of the fact that all of the Councillors' reports were omitted, the business was not finished until 11 o'clock and new business introduced at the morning session on Thursday kept the House of Delegates occupied until nearly noon.

The election of officers occurred Thursday morning and was entirely free from contests. All officers were elected unanimously. Dr. F. A. Carmichael, Osawatomie, was elected president. Drs. B. F. Morgan, Clay Center, J. E. Hawley, Burr Oak, F. H. Smith, Goodland, were elected vice-presidents. Dr. Geo. M. Gray was re-elected treasurer. The Councillors for the third, sixth, tenth and twelfth districts were re-elected, and Dr. L. B. Spake, Kansas City, was elected Councillor for the second district to fill the unexpired term of Dr. C. C. Goddard, deceased. The House of Delegates, by unanimous vote, instructed the Council to designate Kansas City, Kansas, as the next meeting place.

The proposed amendment to the constitution raising the annual dues to five dollars came up for action Tuesday evening, and after very little discussion was adopted without a dissenting vote.

TOO MUCH CIRCUMSTANTIAL EVIDENCE

It is safe to say that there has never been a surgical procedure which afforded a larger field for clinical observation than tonsillectomy; or one where so large an opportunity for the study and correlation of preoperative pathology with postoperative results. But, unfortunately, no very elaborate reports have been made. At least no very large series of cases have been carefully studied, impartially studied with a view to establishing the tonsil's peculiar relationship to the many chronic conditions for which it is held responsible. Such reports as have appeared are rather of what may be termed sensational type, greatly deficient in that mathematical precision that determines the true value of all scientific investigations.

On the strength of numerous clinical reports the tonsils and the teeth have been convicted of complicity in the causation of a great variety of chronic complaints and both the profession and the public have accepted the verdict with unusual unanimity.

While the clinical evidence seems to be conclusive that the tonsils are frequently foci of infection and portals of entry for blood stream infection, neither the pathologist, the clinician or the surgeon has been able so far to point out the distinguishing features of the guilty ones.

Charles H. Mayo said at Milwaukee, last October, "With regard to infection of the tonsils, consultation with the throat specialist may leave the condition still worse, as he might consider that the small tonsil, size 1 or 2, gave no evidence of disease, even if the history indicated that the patient had had many attacks of tonsillitis in early life. For the tonsils graded 3 and 4, large because of reaction against infected pockets within them, the specialist would recommend removal, although their size and reaction then usually confers immunity against their causing focal diseases at a distant point."

The throat specialist then, who sees more tonsils than most practitioners, is incompetent to judge of their probable responsibility in the matter of focal infections.

Pathologists have apparently not devoted much time to the subject or at any rate have had little of importance to report.

Under the circumstances the practitioner feels justified in removing tonsils on suspicion and makes his decision as to the culpability of the tonsils on the results that follow. If recovery follows the tonsillectomy his wisdom has been confirmed, if there is no improvement the focus of infection must be looked for elsewhere.

This practice is another evidence that medicine is still far from being a science. Such a haphazard system would not be tolerated in the sciences, or in the arts for that matter. It is also largely responsible for the large per cent of disappointing clinical results reported.

Fifty-two per cent of Pemberton's four hundred cases of arthritis, said to be the largest group of controlled cases so far investigated, showed foci of infection in the tonsils. Proetz (Arch. Otolaryngology, Apr.), referring to these cases says: "The important thing is that although ninety-two or twenty-three per cent of the patients recovered in the absence of any known focal infection just twice as many or forty-six per cent got well in the presence of such a focus."

The current medical literature is quite overweighted with the discussion of the tonsils (and the teeth) as foci of infection; and the reports of a variety of chronic conditions—the number and variety rapidly increasing—that have been cured by tonsillectomy; and by reports of experimental research in which we are told how pathologic lesions similar to those existing in the patient have been produced in animals by injecting material from the removed tonsils.

With such a preponderance of clinical evidence that the tonsil is a focus of infection causing a considerable variety of chronic diseases and with no definite means for determining when it is or is not implicated; the practitioner is certainly justified in continuing to demand their removal on suspicion when other means have failed to relieve the condition, in spite of the fact that the results are frequently disappoint-

ing and his patient put to unnecessary suffering and expense. But the medical profession is not justified in allowing such conditions to exist when there is such a vast amount of clinical material for thorough investigation.

For the same reason the throat specialist is justified in continuing to remove tonsils whether they do or do not show evidences of the disease, on the ground that if they are not they may become foci of infection. He is justified in spite of the controversies as to the possible physiologic function of the tonsil, its possible importance as an organ of internal secretion, and many other such undetermined suppositions or theories. It has been claimed that the removal of the tonsils in young children may retard their growth, particularly their sexual development. From the hundreds of thousands of children that have been tonsillectomized during the past decade, enough data should be gathered to determine the truth or lack of truth for these claims.

It has been claimed that in cases of latent tuberculosis a tonsillectomy is likely to be followed by an acute progressive type of the disease, and many physicians have observed such unfortunate results. It does not appear that it would be very difficult to collect the histories of a few thousand cases of tuberculosis and latent tuberculosis in which tonsillectomies have been done and determine therefrom if these reported results were coincidences or if the reactivation of the tubercular infection were due to the tonsillectomy, and also, as has sometimes been claimed, if the tonsils in any way contribute to immunity to tuberculosis.

There are perhaps a small per cent of our profession that depend upon the knowledge gained in school and what they think they have learned from their own experience. Otherwise our profession is largely made up of teachers and pupils. With the teachers belong the leaders in medicine, the men on the teaching staffs of the colleges and hospitals, the writers of books, the men engaged in research, and particularly the contributors to current medical literature. The remainder of the profession can

be regarded as under the head of pupils, and it is needless to say that this group far outnumbers the other. The teachers are responsible for the practice of medicine. The pupils are sometimes misguided by too optimistic claims for efficiency of therapeutic or surgical procedures. They are frequently misinformed by the sensational accounts of successful new methods, and immature reports of clinical results. If the mass of practitioners, the pupil group, are too free-handed with procedures suggested to them, are indiscriminate in their application, so that disappointment tends to discredit the merits of the procedures; it is usually because the teachers have not been, perhaps could not be, definite and explicit, because their own observations have not been controlled and because their conclusions have been drawn from insufficient or inaccurate data.

If any fault is to be found with the practitioners for demanding the removal of tonsils and teeth on suspicion, that fault lies with those who belong to the teaching group, because they have failed to find, or at least failed to point out, the distinctive features of the tonsil or the tooth, not which might possibly be, but which is a focus of infection.

There are commissions or committees for the study of most everything, why not a commission to compile the records of tonsillectomies and to study the pathology of the tonsil.

CHIPS

Heinz and Welker experimenting on twenty-two students found that the ingestion of yeast produced definite leukocytosis (Arch. Int. Med. Apr. 15). These subjects consumed each three cakes of yeast daily. The men were watched carefully for evidences of infection that might cause a leukocytosis. In the majority of the cases studied there was a definite increase in the leukocyte count, much greater than the normal variation.

Surgeon General Cumming has issued a warning against the use of bunion pads as a dressing in vaccination against smallpox. Several cases of tetanus following their use have been reported and tests made by the

Hygienic Laboratory of the Public Health Service have demonstrated the presence of tetanus spores in bunion pads from the same source as those which were associated with the tetanus cases. In that case it would seem important to prevent their sale, even for use on the feet.

Tow reports his experience with intramuscular injection of ether in pertussis (Am. Jr. Dis. Children, Apr.) Eighty-two per cent of sixty-one children with whooping cough were benefited. The number of paroxysms was reduced and their severity lessened; the patients slept better, their appetite improved and vomiting was lessened. Eight per cent were unaided. Two per cent of 385 injections given were complicated by necrosis. He concludes that ether intramuscularly is a valuable drug in the treatment of pertussis.

The supreme court of Maine has held that typhoid fever, contracted by an employee of the State Highway Commission from drinking polluted water furnished him by the commission while in its employ, is a personal injury by accident within the terms of the workmen's compensation act and therefore compensable.

A specialist in genito-urinary diseases, in New York, made a very thorough examination of a patient who came to him. The examination was exhaustive and included a kidney function test and a cystoscopic examination. It required three days to complete the examination and the patient was charged \$50.00 as per previous agreement. The doctor proposed to treat the case at a stated fee for each treatment. The patient brought suit against the doctor charging fraud and deceit but later changed the charge to breach of contract claiming the doctor agreed to cure him for \$50.00. In spite of the evidence that the charge of \$50.00 was for the examination only the jury held for the plaintiff and the judgment was affirmed by the appellate court.

Sturgis, in an article on Exophthalmic Goiter in the Medical Clinics of North America, March 1925, summarizes his observations as follows:

"A patient may recover from the disease without any treatment other than avoiding heavy work. This recovery may be permanent.

"Although temporary recovery may occur in untreated persons, there is a marked tendency for the disease to recur. Each

recurrence is likely to result in additional cardiac injury which may lead to the patients death.

"Roentgen-ray treatment produced results in a small group of these patients which equal surgery. In many however, it apparently has no effect.

"Following partial thyroidectomy, all of the symptoms may reappear, after eight years of perfect health.

"The administration of iodine to these patients is a valuable preoperative measure, as it is followed by a transient drop in the basal metabolism."

There seems to be no limit to the conclusions that may be drawn from the studies of statistics. For instance, Dr. Hoffman, consulting statistician of the Prudential Insurance Company concludes that there is an important connection between breathing capacity and delinquency among women. He says: "While delinquents apparently have a slightly better general physique than normal women, as indicated by a somewhat larger chest and abdominal circumference, their breathing power is distinctly less, and this vital inferiority may have an important bearing upon mental development, for otherwise physically delinquent women exceed rather than fall below the averages for the different bodily proportions as ascertained by painstaking measurements."

Hill and Scott have reported on some tests of mercurochrome as a biliary antiseptic (Arch. Int. Med. Apr. 15). Mercurochrome appears in the bile quickly after intravenous injection of 5 mg. per kilogram of body weight. It is present in the bile in its strongest concentration for two hours and weaker concentration for two hours longer. When given by the stomach it appears in the bile more slowly and in weaker concentration. The conclusions reached by the investigations are: "In mercurochrome—220, a drug has been found which experimentally meets the requirements of a biliary antiseptic, in that it is excreted in the bile in bacteriostatic and bactericidal strength, and which as has been previously shown, is of low enough toxicity to allow its safe clinical use intravenously or by the mouth. The trial of mercurochrome clinically in both latent and acute gallbladder infections is not only justified but also clearly indicated from these experimental findings.

If one of the societies for the control of something or other now in existence could

accomplish a very small part of the purposes of their organization the world would soon be holy, healthy and happy. The following is quoted from a letter recently received from one of these societies:

"During the war we were startled when the figures showed the physical and mental level of the American population. In our travels each day we are thrown face to face with the question whether America's stock is not degenerating. We note the enormous number of defectives which we are supporting; we see the number of criminals increasing; we see our taxes mounting; we see the better grades of humanity dying out from lack of children; we see the poorer grades increasing; we see the threat of undesirable immigration; and we lament. There is scarcely a man or woman of us but who has viewed the situation with alarm, and felt that 'something must be done about it.' Until recently we have had no opportunity to do anything but deplore. Individually we can not stem the tide. *But now the Eugenics Society has been formed.*"

The theory that high protein diet and hypertension are closely related receives some confirmation from the results of the experiments conducted by Nuzum, Osborne and Sansom, which are reported in *Archives Internal Medicine*, April 15. Three groups of rabbits fed on different types of protein developed increased blood pressure. There was evidence of renal irritation in the presence of albumen and casts in the urine and by retention of non-protein nitrogen and urea nitrogen in the blood. There was evidence of acidosis in the continued decrease in the carbon dioxide of the blood plasma. This was not present in the soy bean group whose urines were alkaline. It is suggested that diets containing an excessive or alkaline ash, necessitating the excretion of excessively acid or alkaline urines over long periods of time might in themselves, be responsible for degenerative blood vessels and kidney changes.

SOCIETIES

JACKSON COUNTY MEDICAL SOCIETY

The regular monthly meeting of the Jackson County Medical Society was held in the court house at Holton, Tuesday evening, April 14.

The following program was presented:

"Diagnosis and Classification of Common Skin Diseases," Dr. S. T. Millard, Topeka, Kan.

C. A. WYATT, *Secretary*.

No Post-Graduate Course at Rosedale This Season

Notice of the regular course for physicians was published in the April number of the *Journal*. After the *Journal* had gone to press we received a letter from Dr. H. R. Wahl, acting dean, from which the following is quoted:

"We have recently been working over the budget of the School of Medicine, and find that it is very unlikely that there will be sufficient funds to take care of the post-graduate work this summer. The attitude of the administration is that inasmuch as so few doctors took advantage of the course in the last few years, and as the recent legislature made no allowance for an increase in the salary items, that this work should be discontinued. I regret very much to see this done, but I can see no way of remedying this at present."

Cancer or Vagotonia—The X-Ray versus Belladonna—by The Prodigal

Dr. Charles Everett Haines (in the *J.A.M.A.*) reported a patient with stomach affection in which the x-ray evidenced cancer. The patient was given the tincture of belladonna and was cured. Belladonna won. It was a case of vagotonia.

Vagotonia is described as an irritability of the vagus nerve, often marked by excessive peristalsis and loss of the pharyngeal reflex. Belladonna has long been used and is one of the best remedies known, to relieve spasm of the pylorus.

Spasm of the pylorus is known by the sensation of epigastric fullness, distress and pain in the stomach, coming on just after eating. The symptoms grow less and finally cease when the stomach is emptied. Belladonna depresses the peripheral fibers of the splanchnic nerve, puts them to sleep, and at the same time it increases peristalsis of the muscular coats of the stomach and intestines. Belladonna relieves painful intestinal digestion often, also borborygmus. In enuresis, especially in children, caused by excessive irritability of the terminal nerve filaments in the mucous membrane, at the neck of the bladder, the tincture of belladonna is almost specific. Ten drops of the tincture should be given at bed hour or five drops three times a day.

Belladonna decreases gastric secretion and should not be given just before or after eating, on the theory that it retards digestion. Nature puts this trifling interference aside by anesthetizing the sensitive nerve endings at the pylorus and strong arms, by

muscular force, the food out of the stomach quickly and gives relief.

The tincture of belladonna is preferable in such cases to those of its other preparations. Although it is not as reliable in its strength as the fluid extract, or the alkaloids are.

If from five to ten drops of the tincture do not cause a sensation of dryness of the mucous membrane of the nose and mouth it is not dependable. Blonds are more susceptible to the effect of the drug than brunettes. In giving belladonna or any of its alkaloids to get the physiological effect, the patient should be told what symptoms he may expect it to cause, that he may not be alarmed when they come on, and to quit taking the medicine until further advised. The short report of vagotonia, given by Dr. Haines, in the Journal, may be overlooked or it may not impress the average reader with the importance it deserves, is the reason that it is commented on at some length.

The use of the x-ray and other mechanical and laboratory findings demonstrating facts (?) should be arbitrated by clinical therapeutic tests and the trouble be settled without resort to the knife.

BOOKS

Abt's Pediatrics. By 150 specialists. Edited by Isaac A. Abt, M. D., Professor of Diseases of Children, Northwestern University Medical School, Chicago. Set complete in eight octavo volumes totaling 8,000 pages with 1,500 illustrations, and separate Index Volume free. Now ready—Volume VI containing 736 pages with 127 illustrations. Philadelphia and London: W. B. Saunders Company, 1925. Cloth, \$10.00 per volume. Sold by Subscription.

This volume deals particularly with the fevers and acute contagious diseases, but devotes chapters to general anesthesia, local and spinal anesthesia, some medico legal aspects of anesthesia, the peculiarities of surgery in childhood, fetal malformations, vulvovaginitis, arthritis deformans.

Each subject is exhaustively handled. After reviewing the six volumes of this work that are completed one is impressed with the fact that a specialist in pediatrics must be a very efficient general practitioner—and quite a little more.

Recovery Record, for use in tuberculosis, by Gerald B. Webb, M. D., and Charles T. Ryder, M. D. Second edition revised. Published by Paul B. Hoeber, Inc., New York. Price, \$2.00.

In this little book is discussed the rest cure for tuberculosis, the technique, the hygiene and the accidents and obstacles that

may retard progress. A considerable part of the volume consists of blank chart sheets upon which a record of the temperature and pulse may be kept.

Gynecology and Obstetrics—Vol. V of the Practical Medicine Series. By Thomas J. Watkins, M. D., and Joseph B. DeLee, M. D. Published by the Year Book Publishers, Chicago. Price, \$2.00.

This is one of a series of eight year-books published at various intervals during each year. They cover the entire field of recent medicine and surgery and each volume is complete on the subject of which it treats covering all the advances made during the previous year.

The Medical Clinics of North America (issued serially, one number every other month). Volume VIII, Number V, March, 1925. (Boston number). Octavo of 247 pages and 21 illustrations. Per clinic year (July, 1924, to May, 1925). Paper, \$12.00; cloth, \$16.00, net. Philadelphia and London: W. B. Saunders Company.

This is the Boston number of the medical clinics. Christian describes some of the similarities between patients with pernicious anemia and those with polycythemia. Minot reports a case of chronic focal infection with enlarged spleen and enlarged lymph nodes. Frothingham discusses the problem of rheumatism. Fitz discusses the diagnosis and treatment of diabetes. Sturges presents some cases of exophthalmic goiter. Ohler and Ullian present some observations on basal metabolism. Blake reports a case of streptococcus septicemia treated by intravenous medication. White has an article on the redundant colon. These are only a few of the very excellent reports to be found in this number of the Medical Clinics.

International Clinics, a quarterly of illustrated clinical lectures and especially prepared original articles. Edited by Henry W. Cattell, M. D., with collaboration of several eminent physicians and surgeons. Published by J. B. Lippincott Co., Philadelphia.

The first part of this volume is occupied by Professor Barker's medical clinics. Then there are a series of papers on diagnosis and treatment. Next a series of articles on mental disturbances, followed by several excellent articles dealing with surgical subjects. A variety of subjects are discussed in the different departments and these discussions are interesting and instructive.

The Surgical Clinics of North America (issued serially, one number every other month). Volume V, Number I (New York number, February, 1925). 294 pages with 142 illustrations. Per clinic year (February, 1925, to December, 1925). Paper,

\$12.00; cloth, \$16.00, net. Philadelphia and London: W. B. Saunders Company.

In the New York number of the clinics Dr. Pool's clinic on exophthalmic goiter has first place, Berg's clinic on gastric ulcer is next. The surgical clinic of Dr. Edwin Beer deals with a variety of subjects but most prominently with calculi of the bladder and kidney. Coley has a clinic on sarcoma of the long bones. There are clinics by Elsberg, Moorehead, Gobson, Bancroft, Green, Lilienthal, Furniss, Wood, Lowsley. These are all interesting and of sufficient variety to appeal to everyone.

—R—

Opportunities for Graduate Medical Study in New York

The Committee on Medical Education of the New York Academy of Medicine has prepared a series of synopses of approved opportunities for graduate medical study in New York City which will soon be published for distribution. The synopses cover dermatology and syphilology, obstetrics and gynecology, internal medicine, neurology and psychiatry, ophthalmology, oto-laryngology, pediatrics, surgery, urology and orthopedic surgery.

A Bureau of Clinical Information is maintained at the Academy of Medicine, 17 West 43rd street, where detailed information is available regarding opportunities for graduate medical study in New York, and also in other cities of the United States and abroad. The executive secretary in charge of the bureau is prepared to answer inquiries concerning ordinary internships, special internships or residencies, graduate courses in medical schools and teaching hospitals, and extension courses. Much information in regard to graduate medical work in England and on the Continent is on file.

The bureau publishes a daily bulletin of Surgical Clinics which will be mailed free to visiting doctors on request. A weekly bulletin of medical clinics also is published. A book of the fixed clinics of Greater New York, with a transportation guide, has been prepared for the use of visitors whose stay in the city is limited, and is furnished without charge.

—R—

The List of Approved Hospitals Has Been Revised

The 1925 revised list of hospitals approved for internships by the Council on Medical Education and Hospitals of the A.M.A. appears in the Hospital Number of *The Journal* for March 28. The list was

first published by the Council in 1914, in response to a growing demand for such a list for the guidance on medical graduates and others seeking a year or more of hospital experience. It has since been revised every two years until 1922 and annually since that time.

The approved list at present contains only general hospitals that are in position to furnish full-rounded internships such as satisfy the medical colleges and state boards as well as meet the almost universal demand of medical graduates for at least a year's hospital experience before either general practice or specialization. The Council also issues a list of hospitals that provide residencies in the specialties for graduates who have already served a general internship.

—R—

Medical Education and Medical Service

The difficulties in medical service in the cities are seen in the way our young men are seeking the special careers, says William Allen Pusey, Chicago (*Journal A.M.A.*, Jan. 24, 1925). The great expression of this fact is the way our present graduates show a preponderant tendency to go into the specialties. They are not going into general practice. The situation in the cities is not acute, because the supply of physicians of the older generation leaves for the present enough of that generation to meet the demands of general practice. But it is evident that, unless we can do something to change the trend, the time is not far distant when the problem of the general practitioner as we have always known him—the family doctor for the man of ordinary means—will be a serious one even in the cities. Another expression of the fact is the new difficulties in getting men to fill official and government positions that would naturally be filled by medical men when they are available. We are now compelled to look outside the profession to fill many positions having to do with medicine. The evidence is accumulating that we are producing only a very costly sort of physician and are not now producing men to do the ordinary service of medicine for ordinary people in the cities or the country. With about 25,000,000 potential income tax payers in the country, 6,662,126 paid in 1921. The ordinary people are certainly over half of our entire population, urban as well as rural; so that the question of medical service for ordinary people is the biggest problem we have. Strong evidence is

accumulating of the impending, and in places actual, breakdown of our present form of rural medical service. He wrote to the secretaries of the state medical societies asking whether the older generation of physicians in the rural districts is being sufficiently replaced to meet the future needs of these districts. Thirty secretaries of state societies answered No. Four secretaries of state societies (Florida, Minnesota, North Carolina and Rhode Island, the latter having no rural districts) answered Yes. Reports from different sources show that medical practitioners in the country are not being replaced in approximately 90 per cent of the states. If this condition of affairs should continue for a generation, it would mean that the rural districts would be without competent medical service. Unescapable evidence of the developing shortage in rural practitioners is shown by the average age now of country physicians. It is above 50 years for the whole country. In many parts of the country the people are already getting medically helpless. They are running to all sorts of irregular practitioners. Nurses are taking on the functions of physicians, and in many places we are encouraging this. The worst aspect of the situation is in connection with infant care and childbirth. The subject is a topic of investigation by medical societies, of official and other addresses, of conferences. It appears in medical journals in advertisements for a doctor in this community or that, in news notes, in telegrams to the public press. In offering voluntary subsidies and passing laws to allow towns to tax themselves for the support of a needed doctor. Are we, with our eyes open to the obstetric situation as it is developing, ready to turn over childbirth in the rural districts to midwives? Could there be a more sobering matter for our consideration than that midwives are becoming the only reliance in childbirth of half of the community, in many parts of the country where the practice was hitherto unknown; that we are in our following of European standards of medical education, reverting to European peasant conditions in the practice of midwifery in a very considerable part of our self-respecting population? Such facts cut right to the core of our duties in social service. They demand correction, if correction is within our power. They outweigh immeasurably any ideals of medical culture as such, if these ideals can be attained only at such sacrifice.

Hypertension and Hyperglycemia

A study was made by H. K. Mohler, Philadelphia (*Journal A.M.A.*, Jan 24, 1925), of forty-six patients with glycosuria and a systolic blood pressure of 150 mm. or more. The ages of the patients varied from 30 to 70 years. Forty-five of the forty-six patients, when they came under observation, ranged from 1 per cent to 60 per cent overweight. Thirty-six patients of the series weighed more than 200 pounds (91 kg.) at some period in their lives. Sixteen can be classified as having fully developed diabetes. Albumin and hyaline casts were present in the urine of twelve patients, and four showed albumin with hyaline and granular casts. Ten patients were symptom free. Twenty-six patients complained of two or more of the cardinal symptoms of diabetes mellitus; viz., increased thirst, increased appetite, polyuria, loss of weight and thirst. Pain in the back was complained of by six patients. Two patients complained of wounds or injuries healing slowly. Three patients stated that the only symptom they had was excessive nervousness. One patient was suffering from hemiplegia and another from gangrene of the toes, this being the first and, with glycosuria, the only symptoms. One patient complained of neuritis in the right arm, and another stated that since an attack of influenza he had never felt strong and had had glycosuria. One patient complained of cataract of the eye as the only impairment of health. Polydipsia and polyuria were present in twenty-six cases and absent in twenty cases. Polyphagia was present in twenty-eight cases and absent in eighteen cases. Sixteen patients of the series could be diagnosed clinically as having diabetes with all the cardinal symptoms present. Many of the patients complained of shortness of breath "on effort," which is more or less commonly present in the obese. None of the patients showed any signs of rupture of compensation or of heart failure, unless the shortness of breath of the obese is regarded a symptom of myocardial damage. Definite dental infection was present in 30 per cent of the patients. Neuritis and pains in various parts of the body were invariably associated with focal infection. The vague pains complained of in various parts of the body, especially in the back, may have been due to a more or less rapid loss in weight with the relaxation that follows the loss of support to the various structures of the body. Palpation of

the superficial blood vessels of these patients revealed no greater thickening than one would expect according to the age of the patient. Mohler expresses the belief that endocrine disturbances may be responsible for glycosuria, increased blood pressure and obesity without arteriosclerosis. The blood pressure findings in diabetic patients are not constant, and depend on other factors than the lesions of diabetes. Degenerative changes that take place in the body, when affecting the structures involved in carbohydrate metabolism, of necessity must impair their efficiency and result in hyperglycemia and glycosuria. Obesity frequently favors the development of sclerotic changes in the body, which are capable of producing an increase in the blood pressure and a diminished ability of the body cells to utilize carbohydrate.

—R—

Intradermal Salt Solution Test in Lobar Pneumonia in Children

McClure and Aldrich found that the elevation produced by intradermal injection of 0.2 c.c. of an 0.8 per cent aqueous solution of sodium chlorid became impalpable much more quickly in a group of children having edema than in a group of controls. Jeanette Harrison, Chicago (*Journal A.M.A.*, April 25, 1925), undertook to determine whether in lobar pneumonia the test would show changes in the skin indicative of a tendency to edema and of tissue intoxication, and incidentally to determine what effect, if any, fever has on the tissues' avidity for water. In the tests, the technic described by McClure and Aldrich was followed. By this method 0.2 c.c. of sterile 0.8 per cent aqueous solution of sodium chlorid is injected intradermally under aseptic precautions into the flexor surface of the forearm, or in the leg, or in both, and the persistence of the resulting elevation, as determined by its detection by palpation, is accurately timed. The time for the normal child, over 1 year of age, is somewhat more than sixty minutes. The twelve patients tested were all acutely ill children ranging in age from 2 to 14 years. In none was there any edema demonstrable by pitting. In lobar pneumonia in children: There was a considerable shortening of the disappearance time of intradermally injected salt solution. The crisis had no immediate effect on the length of the disappearance time. After the crisis, the return to a normal disappearance time was usually slow.

It is suggested that this effect on the disappearance time indicates an intoxication of the tissues, which is more persistent than is ordinarily considered to be the case.

—R—

Simple Immediate Treatment for Vomiting

All patients suffering from symptoms of reverse peristalsis in the upper gastrointestinal tract from various causes, were given amounts of 2 per cent sodium chlorid solution varying from 50 to 200 c.c. In every case there was immediate relief of symptoms, but in several cases the relief was transient. Edwin P. Lehman and Harry V. Gibson, St. Louis (*Journal A.M.A.*, April 25, 1925), suggest the possibility that the action is a local one, tending to establish forward peristalsis in the stomach, no matter what the cause of the reversal. It may be found that the expression of this effect in amelioration of symptoms depends on the intensity of the abnormal stimuli to reversal of peristalsis. The treatment is so simple and harmless that it deserves a trial by clinicians everywhere, with a view to confirming or disproving these observations.

—R—

Morphin: Before and After Operations

A questionnaire sent out by M. A. Slocum, Pittsburgh (*Journal A.M.A.*, April 25 1925), on the use of morphin before and after operations leads to the following conclusions: The surgical profession is distinctly not in accord regarding the use of morphin before and after operations. The reasons given, by surgeons in general, for not using morphin differ widely. It is a curious fact that one group of prominent men condemns morphin as definitely producing unfavorable symptoms, while another group advocates its use because it prevents these very symptoms. This questionnaire clearly establishes the fact that a majority of surgeons are in favor of morphin preoperatively and postoperatively in practically all cases. At the present time, there is less fear of using morphin in surgery than there was twenty years ago. Whether this should be a danger signal or whether it has come about because of advances in knowledge remains to be proved. An attempt should be made to set some sort of standard by which we can be guided in our use of morphin. While it is admitted that it is difficult to standardize the use of drugs in general, it is felt that morphin is of sufficient importance, and in general

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enough use in surgery, to merit at least a trial toward standardization. There seems to exist a vast field for research, animal and otherwise, in the therapeutics of morphin. It is true that there is a great deal known about the pharmacology of morphin. However, there is little mention in the literature of work done on animals regarding the effects of morphin on the kidneys, circulation, gastro-intestinal tract and respirations.

—R—

Reunion and Dinner of the Medical Officers of the World War

An attractive feature of the Annual Meeting of the American Medical Association at Atlantic City will be the reunion of the medical men who served their country in the Army and Navy during the World war, to renew the memories, friendships and associations of those eventful days. The Chief Surgeon of the A.E.F. will be there, and the President of the Association of Military Surgeons, Surgeon General Hugh E. Cumming, and other officers of the Association under whose auspices the meeting will be held. An effort will be made to group together those who served in the same organizations and so it is requested that reservations be made as early as possible, and that comrades state in writing for them the base hospital or other medical unit to which they belonged. Write for tickets to Colonel Burt R. Shurly, Med-Res., U. S. A., 62 West Adams Ave., Detroit, Michigan.

Time and Place—May 27th at 7:00 p. m., at the Ritz-Carlton Hotel, Atlantic City.

Members of the Association of Military Surgeons are requested to wear the badge of the Association.

—R—

Significance of Unilateral Dilatation and Fixation of Pupil in Severe Skull Injuries

Eight cases are cited by Emile Holman and W. M. J. Scott, Cleveland (*Journal A. M.A.*, May 2, 1925), to indicate the importance of accurate and frequent observations of the pupils in patients who become unconscious as a result of head injuries, as they may well be a valuable aid in determining the side on which the operation for the relief of intracranial hemorrhage should be performed. The importance of this sign in the absence of other localizing manifestations makes it imperative that its appearance be not prevented by the use of homatropin or other mydriatic drugs following skull injuries. Unilateral dilatation and fixation of the pupil is a valuable aid in

determining the location of the intracranial injury and hemorrhage following head injuries. Operative intervention should be directed toward the side on which this dilatation and fixation first appear. Its transitory character makes accurate and oft-repeated observations necessary from the moment of injury. The use of mydriatics should be avoided when intracranial trauma and hemorrhage are suspected following severe head injuries.

—R—

Anuria Relieved by Ureteral Catheterization in a Case of Renal Hypoplasia

Julia C. Strawn, Howard Chislett and Daniel N. Eisendrath, Chicago (*Journal A. M.A.*, May 2, 1925), relate the case of a patient who had a right kidney which failed to develop; it was in a condition of hypoplasia. Following exposure to cold, by falling into the water and lying on the sand until his clothes were dry, there was an acute congestion of the left kidney, followed by colicky pains—a not infrequent accompaniment of such acute congestion. The burden of urinary excretion was thrown on the right (embryonic) kidney, which was unable to carry the burden, with the resultant almost complete anuria and symptoms of renal insufficiency. Ureteral catheterization gave relief.

—R—

Required by the Act of Congress of August 24, 1912, of the Journal of the Kansas Medical Society, Published Monthly at Topeka, Kansas, for April 1, 1925.

State of Kansas, County of Shawnee, ss.

Before me, a notary public in and for the state and county aforesaid, personally appeared W. E. McVey, who having been duly sworn according to law, deposes and says that he is the editor of the Journal of the Kansas Medical Society and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in Section 443, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

Name of	Post Office Address
Publisher—W. E. McVey, under direction of the Council of the Kansas Medical Society.....	Topeka, Kansas
Editor—W. E. McVey.....	Topeka, Kansas
Managing Editor—None.	
Business Manager—None.	

2. That the owners are: (Give names and addresses of individual owners, or, if a corporation, give its name and the names and addresses of stockholders owning or holding 1 per cent or more of the total amount of stock.)

Kansas Medical Society, Alfred O'Donnell, Ellsworth, Kansas, President; Dr. J. F. Hassig, Kansas City, Kansas, Secretary; Dr. Geo. M. Gray, Kansas City, Kansas, Treasurer.

3. That the known bondholders, mortgages, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholders or security holder appears upon the books of the company as trustee or in any other fiduciary relations, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is: (This information is required from daily publications only.)

W. E. McVEY, Editor.

Sworn to and subscribed before me this 26th day of March, 1925.

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(My commission expires April 15, 1925.)

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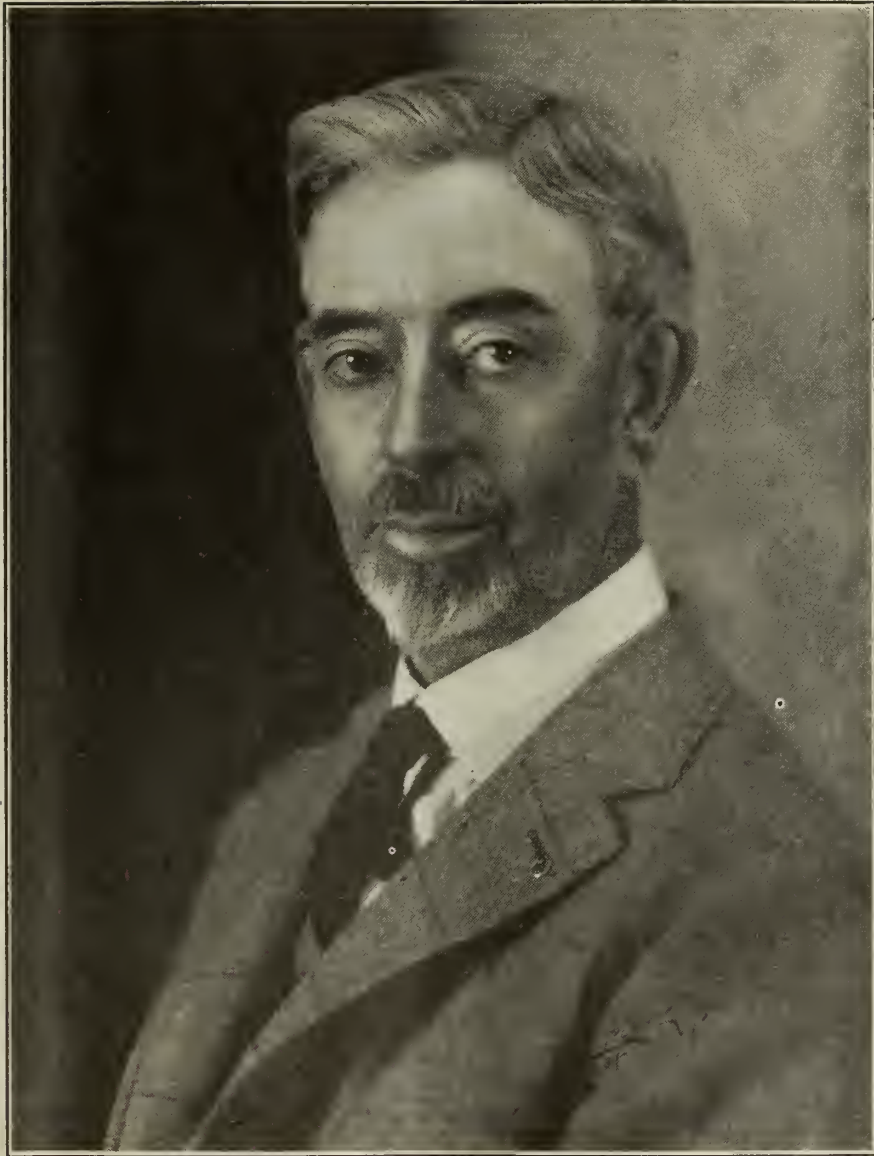
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PRESIDENT'S ADDRESS

Beating the Quack

ALFRED O'DONNELL, M.D., Ellsworth

Read at Annual Meeting of the Kansas Medical Society, Topeka, May 5-7, 1925.

No one can leave an office such as the presidency of the Kansas Medical Society without a sense of the high privilege of having been permitted to preside over the councils of such an organization.

As I lay down the duties of this office, it is with the confidence that other hands will carry forward its requirements with an increasing measure of success; and to the new president of the Society, I extend not only a cordial greeting but congratulations upon an opportunity for service to the profession.

The United States has been called the paradise of quacks and charlatans. Other countries have their humbug and cheats, but advertising has not developed their nefarious trade to the mammoth proportions that it has with us. The enlightened foreigner who sees our hundreds of absurd, dishonest and vulgar advertisements on electric signs, billboards, and in the daily prints, receives a most painful impression of the national character and moral level.

It is manifest that in medical matters, as in other fields of knowledge, superstition gives way by very slow degrees before the advance of civilization. It is not conceivable, for instance, that the New York legislature, at the beginning of the second quarter of the Twentieth century, would do what it did near the beginning of the Nineteenth century, when it authorized the purchase, for one thousand dollars, and the publication for the benefit of its citizens, of Crous's "perfect and infallible cure for hydrophobia," a prescription which included the pulverized jawbone of a dog, the tongue of a newly foaled colt, and verdigris from copper coins of the reigns of George I or II.

But superstition lingers still, and longer, perhaps, in the domain of healing than in any other, furnishing a fertile field for quackery, and appearing under protean forms of subtlety. The American Medical

Association has published two large volumes entitled "Nostrums and Quackery," in the pages of which will be found qualitative and quantitative analyses showing the worthless or positively dangerous character of the greater proportion of the patent medicines which have been nationally advertised within the past fifty years. For these vile and fraudulent mixtures, the American people have squandered millions of dollars and have paid for their misplaced faith by thousands of untimely deaths. In one of the volumes referred to there appears the testimonial for a so-called "Consumption Cure" and the death notice of the user, which appeared in the same issue of a daily paper. Quack Munyon, whose upward pointing finger was familiar to newspaper readers of the last generation, amassed hundreds of thousands of dollars from the sale of "kidney pills" consisting entirely of plain white sugar, and so the list might be extended, *ad infinitum* and *ad nauseam*.

It is not necessary to go into the history of the various forms of quackery that has been exploited before the public in the past. Sufficed to say, they have been short lived and have accomplished no good. Every advance in the warfare against disease has been made by the regular medical profession. No cause or cure for any disease has been discovered except by scientific medicine.

All kinds of advertisers make all sorts of claims for the things they have to offer, and the public makes allowances for bias, enthusiasm, zeal, and humor. But large and extravagant claims are one thing, and fraud is another. To advertise sure cures for cancer and tuberculosis is cruel and dishonest.

Very much stronger language might have been employed without overstating the case. Taking money from the poor and suffering is not the worst offense of which nostrum venders and the publishers who print their advertising stand accused. The most harmful phase of the whole business is the stalling along of ignorant victims

until it is too late for proper treatment to be effective.

A large proportion of cases of both tuberculosis and cancer are completely curable if taken in time. Every day of delay in securing competent medical advice lessens the patient's chances of recovery. Procrastination for even a few weeks, due to a desire to try out a course of patent medicine, may mean death instead of life. These diseases sometimes progress with great rapidity, and a month of shilly-shallying may make a light case grave or a curable case hopeless.

Thanks to the tireless efforts of the better sort of advertisers and publishers, American advertising is much better than in the past. Some of the smaller newspapers furnish outstanding exceptions to the general rule. Even they in time will learn that dirty business drives away clean business. In the long run it is clean business that pays.

It is true, as candid physicians have pointed out, that the medical profession is not without responsibility—and opportunity—in the premises. It has made a secret and mystery of the art of healing; drugs have been given with an air of miracle-working, and patients have not been taken into proper confidence. Education of the public in medicine, preventive and curative, should be encouraged by the profession in every way. Darkness and ignorance always breed charlatanism and fraud.

Society finds it difficult to protect itself by law from the enemies of the public health, but it should not be necessary to appeal to law in order to make the occupation of imposters unprofitable in communities well removed from barbarism. The common sense of our plain people, supplemented with some judicious medical advice, should be as effectual as a coat of tar and feathers in delivering the public from such blatant scoundrels. There are few more despicable crimes than letting loose a lot of ignorant and unscrupulous persons to prey on the lives and savings of the public, yet we have "diploma mills" that have turned out 25,000 "doctors" with no medical training within a few years to swell the ranks of quackery. Harry T. Brundige, a reporter for the *St. Louis Star* had no difficulty in becoming a full-fledged physician in three days.

Gentlemen, what are we to do about conditions such as this? We cannot accomplish any important or permanent reform unless we have the people with us, but the

ethics of the profession forbid individual advertising; hence the logical answer is general and collective publicity. It is a well known fact that a number of cults or quacks are using the radio to diffuse wrong information and it seems to me that the same powerful agency should be employed by the medical profession to checkmate the audacious scheme and warn the people in time of the dangers lurking in this insidious propaganda.

All the signs of the times make it increasingly apparent that medical science, in the interest of its own integrity as well as that of the public, must enter the militant age of its history. For the past two thousand years or more we have been making steady progress in every phase and department of medical achievement, but we have too complacently allowed the charlatan and fakir to persuade the credulous that we are parasites who do nothing really constructive, but who merely use the other members of the race as clinical material for our experiments.

In spite of the fact that medicine is rapidly becoming more scientific and that quackery has descended to such a low plane of stupidity that it should not be able to deceive an average orang-outang, there has been a steady drift of public patronage away from the experienced and competent physician in the direction of the quack and charlatan.

One doctor in discussing this subject attributes the tendency to two causes, namely, the lack of intimate and personal contact in our relations with our patients, and too great a tendency to make a dark mystery of diagnosis.

It is unfortunately true that the physicians of the country do not avail themselves of the modern opportunity to get their views before the public. Perhaps in no other country of the world is the press agent so active as in the United States. Great commercial institutions maintain not only highly organized advertising departments, which prepare and have printed paid announcements, but in addition take from the staffs of the daily press some of the brightest and best trained men who write editorial matter and news items that keep the organization constantly in the public eye.

Richard J. Finnegan, Managing Editor of the *Chicago Journal* says: "It is fitting for doctors and the press to meet face to face and discuss the things that they have been doing in common for many years.

They can then work to better advantage, hand in hand. * * *

"The history of medicine in the United States is one of the most glorious contributions to modern civilization. Rome was great in lawyers and orators, but weak in doctors. It used to be the boast of pompous Romans that the Roman empire lived for 600 years without a recognized medical profession—but look where the Roman empire is today. * * *

"America would not be what it is at this hour without American medicine. This great profession has created and perfected itself, without undue interference or direction from legislatures, trotting to the beck and call of lay minorities that do not appreciate the devotion to the high calling, the self-abnegation and the fine sense of ethics, honor and public welfare that have marked the careers of American physicians and surgeons.

"It is undoubtedly true that the United States leads the world in health, and if that is so the credit is due to American physicians and surgeons.

"The American medical profession needs to take no back seat when its accomplishments are compared to those of the other professions.

"The secret of success of American medicine has been its freedom of initiative for the individual and the bounty of reward allotted to pre-eminent accomplishment resulting from years of study and labor."

Unless the American medical profession is constantly on the alert to take advantage of the present rapid progress of medical science and the consequent favorable attitude of the public, it is easy to foresee the time when the "isms" and cults, already gone to seed in this country, may take root and require much more vigorous action than if they are plowed under now, and the best way to plow them under is through organized, intelligent publicity, through lectures, the press and radio.

Let us be up and doing, fighting fire with fire when necessary, but determined to protect the integrity of the profession that in all ages of the world has been hailed as the greatest benefactor of mankind.

From the *Colorado Medicine* (February, 1923). "Medicine and Publicity," Philip Hillkowitz, M.D., Denver. "Now, what is the remedy and how shall it be applied?"

"We must inaugurate a campaign of publicity in the press. This means a complete volte face, a revolutionary change in our traditions, but it is for the good of the

people. Propaganda has won more battles than bullets or military strategy. From the time of Tyrtaeus, the lame school master of Sparta, whose inspiring odes are credited for victory over the enemy, down to the recent World War with its veritable ocean of propaganda, the appeal to the intellect or emotion of the reader carried enormous weight in gaining adherents to a cause. We have not utilized this superb weapon. Our enemies, however, have used it liberally, much to our hurt.

"It is time that we assume a militant attitude and carry the fight into the camp of the foe. With science and truth to back us, our attack will be irresistible.

"An example of our prowess in this method of warfare may be adduced from the campaign against the enemies of animal experimentation. For the first time in the history of the state, the physicians girded their loins and waged warfare in true political style with all the refined technique of the seasoned veteran in the game. The chief weapon was the press bureau which gave out advertisements and plenty of reading notices in the daily and weekly newspapers. The result of this campaign, as you well know, was an overwhelming defeat for the forces of darkness.

"Even in this instance the fight was not conducted under the name of the organized medical profession, but under the aegis of another society—the Colorado Association for the Protection of Public Health."

From the *Southwestern Medicine* (July, 1924). "Medical Education of the Public," Dr. J. W. Stofer, Gallup, N. M. "Medical education of the public will teach the laity that health laws and medical practice laws are of more vital importance to them than to those practicing the healing arts. The public health department is one of the best resources for publicity and education of the public and reaches many homes and individuals that rarely come in contact with a physician. Their periodic examinations of school children often leads them to the homes of defective children and thus defects in adults and many faulty living conditions are discovered. These examinations of school children are of untold benefit to these children and often prevent many unnecessary illnesses and deformities, some of which might prove serious handicaps in their future lives.

"The public press is more lenient and more in sympathy with organized medicine than ever before; this is probably due to two reasons, cleaner and higher standards

of modern newspapers and to the great strides in medical education as a result of higher qualifications of medical graduates.

"In the past yellow journalism predominated and individual and quack medical advertising was a prolific source of revenue to these papers as well as to the individual advertisers. There has been a great change in regard to these irregular and irresponsible advertisements, as most papers assume some responsibility for the integrity of their advertisers. Many of the better newspapers are no longer selling space to unreliable concerns and at the same time are endeavoring to furnish reliable and educational information as well as the news of the day.

"Many life insurance companies are at present urging their policy holders to undergo an annual physical examination and some more progressive communities are advocating the examination of adults on each birthday."

Illinois Medical Journal (1923). Editorial, "Educational Publicity." "With the announcement that the Lay Educational Committee has made arrangements for inaugurating our statewide campaign of educational publicity, it is fitting at this time to explain briefly just what the program contemplates and what topics have been suggested as possible lines of attack. More than likely there are many physicians who need a little education themselves—an education which will open their eyes to the fact that the practice of medicine is drifting out of their hands into questionable harbors with a speed and completeness that is deplorable.

"Outlined briefly, the following topics are a few of those now under consideration as possible subjects for publicity.

"The importance of periodical professional examinations of apparently well persons as a means to maintain health and prolong life.

"The necessity of early diagnosis and early treatment of disease.

"The value of medical science to the individual and the community.

"The evils of self-prescribing.

"What medicine is doing to prevent disease.

"What immunization is doing in the prevention of disease: *i. e.*, typhoid fever, diphtheria, etc.

"What surgery is doing in the conservation of life.

"What surgery is able to do in reconstructing destroyed tissue.

"Many other features of modern surgical and medical practice as may develop from the above.

"The following has been tentatively outlined by the committee as its work for the first year:

"Classification and centralization of the resources of the society with reference to publicity.

"Establishment of general publicity media for news and feature material.

"Enlistment of the active co-operation of county societies in order to make the campaign the affair of every doctor rather than of a committee.

"To accomplish these things the committee has appointed a trained publicity director, who will have charge of the detail connected with the preparation of news material and its distribution. Work will begin immediately and the co-operation of all Illinois physicians is sought in order that the campaign may be carried to a successful conclusion.

SUBSCRIBERS TO THE LAY EDUCATIONAL FUND CAMPAIGN

"Note.—Will County Medical Society contributed \$350.00 to the fund. Rock Island County Medical Society contributed \$100.00 to the fund. Madison County, Winnebago County and the Tri-City Medical Society also contributed. These five organizations are the only County Societies that as organizations have contributed to the fund.

"The proposed campaign cannot be prosecuted without funds; it must be supported by popular subscription. It is hoped that every doctor will subscribe to this worthy cause. Serious disease diverted from the incompetent will result in the saving of thousands of lives and will prevent much permanent invalidism.

"This campaign will achieve two great objectives: A gradual, but ultimate restoration of the medical profession to its merited place in the public sympathy and confidence and the inestimable benefits to humanity through the consequent prevention of disease and the preservation of life."

—R—

Modern Pathology in General Practice

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Read at Annual Meeting of the Kansas Medical Society, Topeka, May 5-7, 1925.

The scientific investigation and explanation of disease, the demonstration of its cause and the study of the reaction of the body to these causative factors comprise the scope of modern pathology. It is not

limited to the study of alterations in structure, but appropriates any scientific method which throws light on the nature of disease. Physiological tests, chemical, serological, and x-ray examinations, the study of biopsy specimens and bacteriological findings, may all be used. Each patient is in reality a living research problem for whose welfare all the tools of modern pathology are utilized in order that the nature of his malady be revealed and appropriate treatment given. The general practitioner must use the methods of modern pathology in the investigation of his patient's condition just as thoroughly as the professor of research medicine uses them in working out his problems. The main difference is that the former must deal with a living human being and must be more resourceful and more practical.

Consequently, it is essential that the man in general practice know the significance of the application of the various methods of modern pathology in order that he can correlate their results with his other clinical findings. He need not know the technical details of various tests made in the laboratory, but he must be able to interpret their results, and he can only do this by repeatedly and persistently checking these results with the effect of his treatment and, if death ensues, with the findings in the post-mortem room. It is only in this way that he can obtain that intangible medical judgment that is so highly prized and yet so difficult to obtain otherwise.

Such judgment will never be gained by the blind followers of the Wassermann test, the Widal, the basal metabolic rate, blood chemical studies, the x-ray, and so on. A physician cannot expect to become successful in his profession if he permits these tools of modern pathology to take the place of his brain and five senses. He must direct and evaluate them in the light of other findings, check them with the results of treatment and, when opportunity affords, with the lesions found at autopsy. Such an attitude cannot fail to emphasize that the Widal test, for example, is an indicator of antibodies and the presence of antibodies against typhoid fever. A patient may be ill four weeks and finally succumb to this disease and at no time show a positive Widal test. It simply means that in this case the body was so overwhelmed with the infection that it was unable to manufacture these antibodies. Another example would be a patient who has severe headaches and high blood pressure with a posi-

tive Wassermann test. The latter signifies the presence of antibodies against syphilis but from this it does not follow that syphilis is the cause of the headache and the hypertension. These may be due to a brain tumor, cerebral sclerosis or kidney disease and syphilis have nothing to do with them.

Just as medicine owes its greatest advances to the development of pathology and its various branches so does the growth of a physician's vision of disease processes depend on his familiarity with abnormal organs seen in the postmortem room. Prior to 1767, the nature of disease was largely a matter of fantasy and speculation, but in this year, Morgagni systematically correlated the symptoms of the disease with the changes found in the patient's body after death and thus substituted a pathologic-anatomic explanation of symptomatology for an imaginary one.

Bichat gave French medicine its start late in the Eighteenth century with his demonstration that the body was composed of various tissues and that disease was caused by changes in these tissues. His influence led to the development of the methods of percussion and auscultation in physical diagnosis by Corvisart and Laennec. Vienna became a famous medical center in the middle of the last century largely through the influence of Rokitansky, the great gross morbid anatomist. Germany was woefully behind in medicine until Virchow announced his epoch making discovery of the relation of disease to structural changes in cells. At this time the conception of disease in Germany was vague and hazy, the following being a quotation from a well-known internist of that time: "Disease has an organic combination of several atoms which develop from the innermost part of one nucleus. This nucleus is its principle. Disease grows from this nucleus to a system of atoms. In this system the nucleus presents the fundamental action, the sum of disease through which extend many branch actions as, for instance, constipation, colic, vomiting, fevers, and so forth. The fundamental character of disease may be either melanotic, apeptic, anaplastic, bilious, dysplasmatic; further anarethic, paralytic, but each of these may combine with those of opposite characters as branch reactions." It was nothing but a mass of words which did not mean anything. Virchow, on the contrary, recognized only deductions based on actual observation and stated that every physiological process has an anatomic corollary, that

anatomic changes represent the disease, and that these changes find their basis in the changes in the individual cells.

Later, Cohnheim introduced the experimental method in the development of pathology and it was soon recognized that functional disturbances can occur without anatomical changes especially where there is a lack of correlation between the activity of organs otherwise appearing normal. Such instances are, however, in the minority and affect usually only the minor functional disturbances. The failure to bear in mind the fundamental importance of the morphological changes has led many astray into vague and obscure conceptions of disease. It is only by repeated visits to the postmortem room that a general practitioner can gain a comprehensive vision of disease processes and acquire a safe and sane perspective in medicine. One famous clinician, recently deceased, made the statement that a physician did not attain the proper degree of humility that would make him a safe guide for his patient unless he visited the postmortem room at least once a week.

The number of autopsies that are performed in this country is much less than in the hospitals of European countries. In a comparison between the number performed in a group of prominent hospitals of this country with a similar group abroad it was found that eight times as many were performed in Europe as in this country. Consequently, the mortality statistics of this country are not nearly as accurate as those occurring abroad. In several teaching clinics a comparison has been made between the clinical diagnosis and the findings at the autopsy and the percentage of error was strikingly high, running from 50 per cent to 70 per cent, being particularly high in cases of tuberculosis and malignancy. While a larger number of the main diagnoses were correct, many important associated conditions were entirely overlooked. Certainly if this percentage of error is this high in a teaching clinic, the diagnosis of the average general practitioner cannot be any better. The autopsy is the best way of checking up medical efficiency in diagnosis and treatment. As it is, with so few autopsies being performed in this country, untold numbers of mistakes of the medical attendants are being buried with the dead, and consequently the same mistakes are repeated again and again.

There is a discouraging apathy on the part of the profession as a whole in this

country toward the performance of post-mortem examinations. In many hospitals no autopsies are performed from one year to another, largely because no particular effort is made to obtain them. In Chicago, recently, an effort has been made to increase the percentage of autopsies with marked success, some hospitals obtaining autopsies on nearly 70 per cent of their deaths. Yet on the other hand, hospitals in the same city have practically no autopsies, in spite of the fact that both classes of hospitals draw patients of the same sex, age, religion, and social condition. The essential difference between these two types of hospitals is that on the one hand the attending staff is particularly anxious to obtain postmortems while the other hospitals have men on their staffs who are not particularly interested. There is no question as to which type of institution has the better medical performance, or to which one a patient could more safely commit himself for treatment.

The apathetic attitude of so many general practitioners toward the use of the postmortem room is difficult to understand. In spite of the vast amount of accurate information it can give, the new light on the patient's condition, the associated and often unsuspected conditions that explain the unusual behavior of the patient, the satisfaction of knowing that everything was done that could be done, or that the diagnosis was correct, the help it offers in explaining symptoms that are present, or may occur in subsequent patients, in spite of all these enlightening points, I'll venture to say that there are many of you who never go to see an autopsy. The greatest value of an autopsy is to go and see it yourself, not to hear someone tell about the findings that were present. There is nothing which is so effective for keeping an enthusiastic physician's feet on the ground as the postmortem with its startling and often discouraging effect. Nor is there anything that is equally effective in stimulating interest in medical science. The concreteness of the evidence which is given by the autopsy is in striking contrast with the variable results that are so often obtained in chemical and physiological examinations. After a medical student graduates from the school he must still continue studying if he wishes to become successful in his profession. The man in general practice needs to follow his patient to the autopsy room more than any other physician. He is isolated often from

means of keeping up with modern advances in medicine. He can, however, offset this by performing a postmortem every chance he can get and see the constantly new facts that will be revealed to him, and in this way keep up his interest in medical progress. When an autopsy is not performed when an opportunity is at hand, the general man tends to become either dangerously cocksure of himself and resentful of any criticism of his diagnosis, or he becomes apathetic and indifferent to the real science of medicine. If he does not attempt to check his impressions with the autopsy findings he gets apathetic toward his patients, loses interest in them, his mind becomes hazy on the cause of disease and he soon becomes a back number, or a blind follower of some fellow practitioner who takes advantage of every opportunity to visit the postmortem room.

Physicians sometimes excuse themselves saying that they are not pathologists, and that there is no one available who will do a postmortem for them. This is but a flimsy excuse. Bright and Addison were always accustomed to performing their own autopsies. Every man knows how to use a knife, scissors and a scapel, and can readily open up a body and note gross changes that depart from the normal. Usually the gross lesions that are found can be readily recognized by any man who has graduated from a first class medical school. Those cases where the lesions are somewhat in doubt, and you are not sure just what is present, you can readily place some of the tissue in a bottle containing 4 per cent formalin and send the specimen *with a clinical note* to the pathological department of the School of Medicine, Kansas City, Kan., and a microscopical report and diagnosis will be forwarded to you free of charge. But don't forget to provide the pathologist with the clinical history with this request.

Of course, not all cases can be autopsied but with reasonable diplomacy a very large percentage can be obtained. At the university hospital 50 per cent of the deaths are posted. The arguments used in obtaining an autopsy vary with different patients. Sometimes one may be successful by appealing to the altruistic nature of the relatives, telling them that the doctor would appreciate an opportunity to check his impression so that things may be found that would give him a lead on the treatment of a similar case next time. As a rule, however, it is not well to dwell too much on the value the doctor would get out of it.

Sometimes an appeal to the family pride is very successful because associated things are frequently found which would show general weakness in the record of that family, and necessary precautions can be taken to guard against it. If the deceased is insured it is always wise to stress the value of an examination in order to be sure that there will be no loophole of escape for the insurance company not to pay the insurance.

It should not be forgotten that the more autopsies that are performed and the better the people become educated to the value of these examinations, the more efficient will the doctors become, and the better the mortality statistics will be. These factors are all essential for the improvement of the general health of the people in the long run.

Case I. A young married woman from a very wealthy family died after an illness of less than 24 hours. Her illness began early in the morning with cramp-like pains in the lower abdomen, followed by increasing weakness and restlessness. She missed a period three weeks before. Her doctor was called but though he saw her several times during the day he assured her, late in the evening, that there was no cause for alarm. The husband remarked that he thought she had a death pallor. A practical nurse was left with her, and found her dead at three in the morning, as neglected as a street waif, though surrounded with luxury and many fond friends and relatives. The doctor made no attempt to have an autopsy, but the husband insisted on one. The abdominal cavity was full of clotted blood, all due to this small opening you see in this ruptured early tubal pregnancy. It would have been so easy to have gone in the day before and removed this bleeding tube and saved this young lady's life. The physician acted as if this were the only autopsy he had seen in twenty years, and seemed to resent our having shown how mistaken he was. Not only did this postmortem reveal the cause of death, and how easily the patient's life might have been saved, but it set at rest some ugly rumors that the girl had died as the result of an illegal operation.

Case II. A swollen, inflamed tube was removed at operation from a girl 16 years old. For some weeks she had pain and tenderness in the lower abdomen and at operation an inflamed tube that suggested a gonorrheal infection. The surgeon shrugged his shoulders and cynically remarked on the uncertainty of knowing what young

girls were like in these days. Microscopic examination showed typical miliary tubercles throughout the wall. The result of this pathological examination (usually omitted in most hospitals) was the demonstration of the cause of this inflammation and the removal of the blot on this girl's reputation. Furthermore, an x-ray was later made of her chest and showed a beginning tuberculous focus and appropriate treatment for this followed. This is the tube that was removed and you will see that it does not look like a tubercular tube.

Case III. The patient had a typical attack of acute appendicitis with operation and removal of an acutely inflamed appendix, covered with fibrin and pus. It also was examined and sections showed not only an acute infection, but also a rapidly growing but early carcinoma. This finding was interesting for the pathologist, but not particularly to the surgeon. It is suggestive in what would have happened had the patient not had this attack of acute appendicitis. Without such microscopic study this tumor would never have been recognized.

Case IV. This was a man 66 years old who had been treated for hemorrhoids which were injected by a rectal specialist. He had lost much weight, had shooting pains in the legs, blood in the stools. He had been in the hospital two weeks and had been thoroughly studied, blood chemical studies being made as well as other tests. A clinical diagnosis of thrombophlebitis of the portal vein was made, the liver being large and tender. The autopsy showed a large ulcerating fungoid carcinomatous mass almost filling the pelvic cavity with extensive metastases to the liver. The mistake in diagnosis here was due to an incomplete physical examination and to too many unrelated laboratory examinations. A digital examination of the rectum, which was omitted, would have immediately revealed the malignancy and accounted for the patient's symptoms.

Case V. This was a man aged 60 whose chief complaint was pain in the stomach, radiating to the back, relieved in part by food. A suspicion of a gastric ulcer was made, but excluded on the basis of negative x-ray findings. Patient was operated upon for reduction of inguinal and umbilical hernias thought to be the cause of the pain. A few weeks later the patient suddenly vomited large quantities of blood, and died a few minutes later. Death was supposed to be due to rupture of an esophageal varicose vein. At autopsy the stomach con-

tained many blood clots. This is the large well-formed peptic ulcer seen in the stomach. Note the large ruptured vessel at its base causing the fatal hemorrhage. This postmortem illustrates how dangerous it is to place too much emphasis on one method of diagnosis to the exclusion of all other findings. The x-ray failed to show an ulcer when all clinical findings pointed that way. The x-ray report was misleading.

Case VI. A colored woman, aged 46, complained of full stomach and heart trouble. She had edema of feet, shortness of breath, and marked ascites. Twelve liters of bloody fluid were removed from abdominal cavity. It was thought a vein was ruptured in passing the needle through the abdominal wall. A diagnosis of myocardial weakness, with acute dilation, was made. At autopsy, the peritoneum was peppered with tumor nodules such as is seen in this piece of the diaphragm and omentum. A primary tumor mass was in the ovary, almost filling the pelvis. The failure to recognize this malignancy was due to the failure to make a vaginal examination, which would have revealed the pelvic masses immediately.

Case VII. A school teacher, 50 years old, was in the hospital for treatment. The day she died she had an injection of insulin shortly after which she felt weak and giddy. She had several dizzy attacks a few days before, but otherwise seemed healthy. But in this last attack her pulse became rapid and weaker, and in spite of every method of cardiac stimulation her heart action became weaker and she died later in the day. For a time insulin was blamed for her death. At autopsy this heart was found. There is an extremely marked sclerosis of the coronary artery with obliteration of the lumina in places, and with marked fibroid myocarditis. The striking thing is the marked organic changes in the myocardium with such insignificant functional disturbances. It is no wonder that cardiac restoratives were ineffective in this case. Had no autopsy been made, insulin treatment would have been blamed for this patient's death.

Case VIII. Here is a woman who was peculiar mentally, and seemed weak. Her weakness progressed over four weeks with death without apparent cause. The clinical diagnosis was some brain tumor or cerebral lesion. The only thing found at autopsy was this extensive destruction of an adrenal gland by a large hemorrhage.

I have seen this lesion in several cases of rapidly progressive and unaccountable weakness.

Case IX. Here is a man 42 years old, who had severe headaches, irregular temperature, paralysis of lower extremities, and death six weeks after onset. The clinical diagnosis was transverse myelitis of a tubercular origin. The autopsy showed a primary tuberculosis of the lungs with this peculiar osseous fish-like scales over the meninges of the cord and surrounded by a tuberculous exudate. This is indeed a rare condition revealed by this autopsy.

Case X. Young man of 30 entered hospital with fever and general weakness. Had been ill two weeks before admission. He had a constant temperature of 103 degrees. A clinical diagnosis of typhoid was made though no typhoid bacilli were isolated. There were many atypical rose spots over the skin. Autopsy showed this heart with typical malignant endocarditis. No evidence of typhoid lesions was present.

I have given you eight illustration of autopsies with findings that all of you could readily recognize. You would not need an expert pathologist's opinion to recognize these lesions. The light they throw on the patient's condition, the reasons why mistakes in diagnosis were made, the confirmation of the clinical diagnosis, the superior value of your five senses as compared to instruments of precision, the knowledge that everything that could possibly be done for the patient was done, should stimulate the more frequent performance of autopsies.

—P—

Observations on the Cause and Treatment of Arterial Hypertension

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Arterial hypertension is one of the most prevalent diseases of the present generation. If, as Joslin says, there are over one million diabetics in the United States, we are safe in estimating that there are at least five million people in this country suffering from high blood pressure. We do not know the total number of deaths, either directly or indirectly due to high blood pressure, but we probably err on the safe side in fixing this number at approximately one hundred thousand per year. The great incidence of this disease and the toll of life it exacts, emphasize its importance and there are also indications that it will increase in frequency. Arterial hypertension,

like diabetes, is a disease particularly of middle life and thereafter. As the span of life is being extended this increase in the number of older men means more cases of arterial hypertension.

During the past fifty years we have learned much about high blood pressure and many therapeutic measures of undoubted value have also been introduced. Although every contributor to the enormous literature that has now accumulated has had something to say regarding its causation, the critical student who has plowed his way through some of these thousands of pages, must feel a sense of dissatisfaction with almost all the theories advanced to explain its genesis.

Every organ in the body, from the pineal gland to the testes, has at some time or other been accused of causing high blood pressure. Its presence has been blamed on associated diseases varying from hysteria to obesity. Some, to absolve their patients from any particular blame, have dug up a bad heredity to explain its presence, and such patients have been told that through some whim of Nature they have been endowed with arteries like rotten tubing and that it is a problem of eugenics rather than of medicine.

Neusser suggested, several years ago, that increased secretion from the adrenals was the cause of hypertension. Vaquez claimed that hypertension was associated with hypertrophy of the adrenals, a finding, however, as pointed out by Pearce which is extremely inconstant. Later statements that hypertension is accompanied by an increase of adrenalin in the blood, are still, in spite of much research, in the domain of speculation and not in the realm of established fact.

Many clinicians have asserted that a high protein diet may cause an elevation of blood pressure and as a therapeutic measure advise a restriction in protein. Strouse, however, found that a careful study of patients in metabolic wards showed the protein in the diet to be without influence on the blood pressure in nephritis and, in essential hypertension. Allen and Sherrill have suggested that salt plays an important role in the production of high blood pressure. They reported a series of patients in whom they found high blood sodium chloride values and state that salt restriction or deprivation is a very valuable method of treatment. O'Hare and Walker have recently studied this subject but were unable to confirm the results of Allen and Sherrill

and believe that salt probably plays no part in the production of hypertension.

Tigerstedt and Bergman, Vincent and Sheen, and Shaw, have all shown that extracts of kidney tissues when injected into animals, produce a rise in blood pressure which may, under favorable conditions, persist for twenty minutes. It is conceivable, according to Shaw, that the kidney, in chronic nephritis, which is undergoing destruction, may let loose this pressor substance into the general circulation. Shaw, however, points out that this hypothesis fails utterly to explain those cases in which hypertension is present with kidneys "to all clinical intents and purposes, normal."

In Shaw's recent exhaustive monograph on Hypiesia, the author advances the theory that a pressor body of protein origin is liberated into the circulation and produces high blood pressure, but he adds later that "so far, to date, no metabolite has been discovered which is pressor in type."

During the past eighteen months we have been studying this problem from both the experimental and clinical standpoint. Beginning with the assumption that some protein body, a product of metabolism, had a pressor effect, we began investigating the properties of some of the better known metabolites. A series of experiments showed that creatine and creatinine had no effect upon the blood pressure but in our third set of experiments we noted that methyl guanidine had a very powerful pressor effect. We found that methyl guanidine, in doses ranging from .1 gm. to .2 gm. per kilo body weight, would raise a dog's blood pressure from 120 mm. to 240 mm. or over and maintain this great increase for from four to five hours. The action is more prompt when the substances are injected intravenously but can also be obtained when it is injected subcutaneously or administered through a stomach tube.

Methyl guanidine is a product of protein metabolism and was first found in the urine of normal individuals by Kutscher and Lohmann in 1906. Its close relationship to creatine and creatinine is emphasized when we recall that creatine is methyl guanidine acetic acid and that creatinine is the anhydride of creatine. Methyl guanidine, in large doses, is extremely toxic, producing respiratory paralysis and convulsions and usually a fall in blood pressure. Clinically it has thus far excited interest mainly because of the assertion of Noel Paton and his co-workers that it is the toxic body

responsible for tetany parathyreopriva and idiopathic tetany.

We have studied the urinary secretion of the guanidine bases in normal individuals, in dogs with experimental uranum nephritis, and in patients suffering from chronic nephritis and essential hypertension. All of these disease conditions have shown a fairly uniform decrease in urinary excretion when compared with normal individuals. In two cases of experimental uranum nephritis with hypertension, an increased amount of these bases in the blood has been demonstrated. In two other cases of experimental uranum nephritis, without hypertension, no increase could be detected. In several hypertensives, having a marked fall in blood pressure while in the hospital, we have shown an increased excretion of guanidine bases accompanying the fall in pressure. All of these observations suggest a relationship between guanidine compounds and high blood pressure.

We have found that the guanidine compounds, when introduced into the circulation, disappear with great rapidity, so fast that in five minutes after injection the blood guanidines have returned to normal, although the blood pressure continues elevated from four to five hours.

Numerous experiments have led us to the view that the pressor effect of the guanidine compounds is apparently exerted almost immediately on the neuromuscular apparatus of the smaller blood vessels. It is probable that these tissues fix a certain amount of guanidine and the further excess is very rapidly destroyed.

We have also studied the effect of certain substances on the hypertension produced by guanidine. *Veratrum viride* and amyl nitrite produce only very transient effects upon the high blood pressure. Calcium chloride, on the other hand, produces a permanent fall in blood pressure accompanied, however, by marked cardiac irregularity. When an equal quantity of potassium chloride is added to the calcium chloride a prompt fall in blood pressure without cardiac irregularity results, this fall being produced by either intravenous or intramuscular injections. If calcium chloride and potassium chloride are injected before the guanidine compounds, no rise in blood pressure occurs. This indicates a chemical action of these substances, neither of them having any marked effect upon normal blood pressure when injected in doses as large as those which will reduce the high blood pressure following the injection of

guanidine. We have also produced a similar fall in blood pressure by the use of normal hydrochloric acid and ammonium chloride.

Some very interesting results were obtained with the parathyroid extract of Hanson and of Collip. Both of these extracts reduce very promptly the hypertension produced by injection of guanidine compounds. We have also studied the effect of extracts of liver, spleen, kidneys, muscles, ovaries and testes. Liver extract has a very profound effect upon the hypertension due to guanidine, reducing the blood pressure to normal in a few minutes and keeping it so. When it is added to, in proper amounts, a solution of methyl guanidine and the mixture injected into an animal, no rise in blood pressure occurs.

These experimental and clinical studies are of theoretical interest and may lead to some therapeutic applications. Working on the assumption that guanidine plays a role in arterial hypertension, we have treated patients suffering from this disease with some of the various substances which have lowered the elevation in blood pressure caused by guanidine. Some interesting results have been obtained, the effect of liver extract for instance, in lowering high blood pressure is often very striking, although caution must always be exercised in interpreting the results of treatment in hypertension. The duration of this fall, the problems of proper dosage and toxicity, require further study and observation. The strength of the extracts can be determined by their effect upon the hypertension produced by guanidine and this may prove of aid in standardizing such preparations.

These studies do not prove that the guanidine bases are responsible for arterial hypertension but the evidence is suggestive. The increased production or the deficient excretion of such a powerful pressor substance would probably produce an elevation of blood pressure. The proof of such relationship awaits further experimental study, as well as the development of new biochemical methods. Meanwhile, it will be interesting to see if substances effective in what we may term guanidine hypertension are also effective in the disease, arterial hypertension.

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R

UNIVERSITY OF KANSAS CLINICS

Clinic of Dr. Thomas G. Orr

Department of Surgery.

SPIROCHAETAL GANGRENE OF THE LUNG

This patient presents a quite unusual though not very rare condition of the lung. It is a disease, I believe, which may be readily overlooked if not kept in mind when studying acute lung infections.

This colored patient is a laborer 24 years old. Four weeks before admission he was struck on the head and at the same time received an eye injury from a small piece of steel. Three days later he developed a pain in his chest with some cough. He thinks he had some fever, but is not sure. The cough was quite productive; at first yellowish and later frothy. It is difficult to establish a causative relationship between the head injury and the lung infection. However, at the time of his injury it is quite probable that he aspirated the infecting organisms. When admitted to this hospital he appeared quite ill and during his examination had frequent attacks of coughing with expectoration of foul smelling,

frothy sputum. He was slightly anaemic with a leuco-cytosis of 15,000, 76 per cent of which were polymorphonuclears. There were a few rales with impaired breath sounds and resonance over the anterior portion of the lower right lobe.

The x-ray shows a definite abscess near the hilum of the right lung (Fig. 1). His



Fig. 1.—This skiagraph was taken 4 weeks after onset of the lung disease. It shows a definite abscess near the right lung hilum.

temperature ranges from normal to 103°. Ten days after admission the abscess was aspirated and 4 c.c. of pus obtained. Through the same needle 4 c.c. of gentian violet solution was injected which was promptly coughed up. The aspirated material showed Gram positive bacilli, cocci and diplococci with a negative culture.

Operation was considered but postponed because the infection appeared to be spreading beyond the abscess area. Postural drainage and pneumo-thorax were tried without apparent benefit. Symptomatic treatment had no effect.

The condition of the patient gradually grew worse. The daily amount of sputum varied between 50 c.c. and 100 c.c. The odor was always quite foul, at times making the ward almost uninhabitable. After three weeks in the hospital small hemorrhages from the lung became frequent. The process had extended far beyond the ab-

cess cavity and it was evident that something besides an ordinary abscess was present. Six weeks after admission Dr. R. L. Haden discovered the spirochaetes of Vincent's angina in the sputum. Neo-salvarsan was given but has apparently not checked the progress of the disease at the advanced stage which it has reached. He is now in a very serious condition and the prognosis is decidedly bad.

The x-ray shows well the progress of the disease. (Figs. 2, 3 and 4.) We feel rather chagrined that the cause of this infection was not discovered earlier. Perhaps early



Fig. 2.—Skiagraph taken 3 weeks after Fig. 1. This shows a marked extension of the abscess area in the right lung.

arsenical treatment might have been of benefit. It is, however, entirely possible that the early abscess was not due to Vincent's infection but secondarily invaded by the spirochaetes and fusiform bacilli from the mouth.

DISCUSSION

This case represents a type of lung infection for which we should be constantly on the alert. Recent reports in the literature indicate that it is not rare.

The attention of the medical world was first called to a spirochaetal infection of the lung by Castellani in 1906. He called the infecting organism *spirochaeta bron-*

chialis. Since then many cases have been reported of both acute and chronic lung infection due to this organism.

We are concerned here with lung abscess and lung gangrene. Kline and Blankenhorn¹ have collected and reported 24 cases

arsphenamin in the early cases. The prognosis usually is good if the disease is recognized early and proper treatment instituted.

In the list of acute lung infections the



Fig. 3.—Skiagraph 6 weeks after Fig. 1. Almost complete consolidation of right lung. The air space in lower right chest due to artificial pneumothorax.

in the United States up to September, 1923. In their own cases they found the spirochaetes and fusiform bacilli of the Vincent type in the gangrenous lung and in the mouth about decayed teeth. They conclude that these cases are extensive pneumonias caused by organisms from the unclean mouth in which gangrenous ulceration occurs because of the activity of the aspirated spirochaetes and fusiform bacilli. Pilot and Davis² report 37 cases of pulmonary infection due to spirochaetes and fusiform bacilli from the teeth or tonsils. Jackson³ has recently reported two cases of ulcerative bronchitis due to the Vincent organisms.

Question has arisen as to whether the spirochaeta bronchialis of Castellani and the organism appearing in the lung gangrene cases are the same. This point has not been satisfactorily settled. It is very probable that they are identical organisms.

The most successful treatment has been with arsenic as Fowler's solution or neo-



Fig. 4.—7½ weeks after Fig. 1. Two large cavities have developed in the right lung and there is involvement of the left lung. The patient died the day after this radiograph was taken.

possibility of spirochaetal infection should be considered and, in doubtful cases, the organism sought in the mouth and sputum by the proper staining methods.

Later Note. The patient died two days later without any apparent improvement from the neo-salvarsan. Dr. H. R. Wahl did the autopsy and studied the gross and microscopic pathology. The most striking gross findings were pulmonary gangrene and broncho-pneumonia. The right lung was totally involved and the left had been invaded to a considerable extent. Bacteriologic examination of the lung exudate and tissue showed Vincent's spirochaetes and fusiform bacilli. There was also present, probably as a late invader, the alternaria recently described by Wahl and Haden.

Clinic of Ferdinand C. Helwig, M. D. EMBRYONAL ADENOSARCOMA OF KIDNEY

This is a boy five years old who was sent into the hospital because of a large abdominal tumor. Four months ago he had a sudden severe pain in the pit of his stomach with some fever and nausea and was operated a week after onset for acute ap-

pendicitis. A large amount of serous fluid was drained from the peritoneal cavity at this time. The surgeon informed his parents that he had a large tumor of the abdomen. When he entered the Bell Memorial Hospital on the service of Dr. T. G. Orr, the abdominal wound was still draining and the abdomen was distended with fluid. A semi-fluctuating mass was found which filled the entire left side of the abdomen. The colon was apparently riding upon the summit of a large tumor and the x-ray showed it to be of normal caliber. He was again operated upon and a large tumor, retroperitoneal in origin, soft and semi-fluctuating in consistency was found. The left kidney could not be made out at this time. The urine examination showed a low specific gravity but otherwise was negative. The phenolsulphonaphthalein test showed an excretion of 65 per cent in 3 hours. The blood picture showed 3,232,000 red blood cells, 45 per cent hemoglobin and 14,900 white blood cells with 75 per cent polymorphonuclear neutrophils. A clinical diagnosis of cystic teratoma was made. At post-mortem we saw a boy about 5 or 6 years old with marked emaciation and extreme muscular atrophy. There was a distended abdomen and a large ulcerated area to the left of the umbilicus about the size of a man's hand. There were three draining sinuses in this area, two of which expelled a very foetid, foul smelling, grayish, purulent material. After opening into the peritoneal cavity the pelvis was found to be partially filled with purulent material and there was some fibrino-purulent material over the intestinal coils in this region which was fairly well walled off. There was a large cystic mass entirely retroperitoneal filling the entire left abdomen and extending 2 to 4 cm. beyond the midline into the right side. All of the intestines were located to the right of the tumor with the exception of the descending colon. The splenic flexure was behind the tumor at its superior pole, where it curved down laterally to the right and below the tumor and at a point about 2 cm. from the umbilicus, the descending colon ascended laterally over the side and then progressed to the summit of the tumor and crossed over to the inferior edge, where it descended, and running laterally, entered the sigmoid. Upon opening the tumor about 500 cc. of necrotic, semi-purulent, grayish white material drained out. The mass measured approximately 20 by 16 by 7 cm. and weighed

peritoneal surface. Of the three holes seen in the ulceration on the abdominal surface, two communicated directly with the center of the mass and the other progressed into the colon forming a fecal fistula. The entire mass was flabby and after dissecting it free from the body cavity an examination of the inferior surface showed that the entire tumor was growing from the inferior pole of the left kidney, the latter being considerably distorted and flattened but uninvolved at any point aside from the lower pole. From this point the tumor grew up over and surrounded the superior surface of the kidney. The blood supply, ureter and pelvis of the kidney were normal and free from any invasion. The capsule was involved by nodules of tumor tissues but it could be stripped away leaving a smooth uninvolved renal cortex.

Section into the neoplasm showed a rather varying architecture. The material was made up of soft, pale-white, semi-cystic, degenerating, encephaloid tissue which showed marked necrosis and secondary infection in the areas where there was communication with the outside through the sinuses. A section through the inferior pole of the kidney showed a gradual transition from more or less normal kidney substance into tumor tissue. No evidence of either regional or remote metastasis was found.

The only other findings worthy of mention were, fatty change of the liver, some fibrotic thickening of the lung parenchyma, a pale anemic somewhat flabby myocardium, acute lymphadenitis of the pelvic glands in the region of the purulent exudation, acute tubular nephritis and acute splenitis.

The histological examination confirmed our gross deductions as to the character of the tumor. The picture presented was that of mixed spindle and round cells showing marked variation in size, shape and staining. These cells were separated by a light reticulum in some areas and in others they were very loose and no reticulum could be made out with the routine stains. Some of the cells were large and oat shaped and showed a light staining nucleus. Other areas showed a tendency to divide the tumor off into groups of cells which were surrounded by a rather thick, hyaline fibrosis. Almost every section viewed, regardless of the point where the block was cut, showed abortive renal elements presumably of epithelial origin in the form of cylinders or tubules lined by embryonic

round and cuboidal cells with a granular, smudgy cytoplasm. In many cases the lumina of these embryonic cylinders were almost obliterated by a proliferation and piling up of these epithelial cells. Every section taken through the lower pole of the chaetes and fusiform bacilla of the Vincent showed a marked predominance of spindle and round cells which further suggested the neoplastic origin of the cylinders and acted as added evidence to their morphological embryonic appearance and wide distribution. A section through the lower pole of the tumor revealed no distended kidney secreting tissue. Everywhere through the tumor evidence of polynuclear infiltration, degeneration and cystic change was noted.

DIAGNOSIS

Embryonal adenocarcinoma of the left kidney showing cystic degeneration and secondary infection with fecal fistula and fibrino-purulent peritonitis.

DISCUSSION

The diagnosis of the condition is always difficult. The presence of the colon riding upon the summit of the tumor designates its retroperitoneal origin. Absence of hematuria is often encountered and is due to the usual lack of involvement of the ureter and pelvis. Pain is not by any means constant and cases have been reported where the child was playing two days before death. Tumor is of course always present and it is almost always palpable in the renal angle. As a rule a portion of the kidney remains as a secreting organ and with the passages unobstructed by any invasion, pyelography would be of little value. The cases are usually unilateral in contradistinction to polycystic kidney and almost all of them appear within the first ten years of life. Some successful operations have been reported and there might possibly have been some hope from this source had the child been seen four or five months earlier. The marked cachexia and extreme emaciation with secondary infection and localized peritonitis made an extensive operation with nephrectomy in this case, however, one which would have been attended by immediate disaster. Such tumors do not as a rule metastasize early, hence, immediate removal upon recognition followed by the judicious administration of x-ray might in some cases provide a hopeful prognosis.

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R

The Physio-Therapeutic Treatment of Colitis

Editor Journal Medical Society:

At our annual meeting of the State Society held here last week we were highly entertained by Dr. Curran Pope, Louisville, Ky. In his article, "The Physiotherapeutic Treatment of Colitis," he laid much stress on the irrigation of the colon, showing in detail the apparatus by which this is accomplished. The illustration showed the patient on the left side, two elevated water containers presumably hot and cold connected by rubber pipes leading to a tube inserted into the rectum of the patient. This tube had two compartments, one for ingress and one for egress. All these pipes were supplied with stop cocks. The outlet pipe leading to a waste receiver.

For many years I have used a simple device for draining the colon which appeals to me as simpler and less damaging to the rectum and more thorough in emptying the colon. This consist of a soft rubber tube large enough to fit tightly over the supply pipe of an ordinary bath tub and long enough to reach to an adjacent stool. This tube is too large to be introduced into the rectum and is simply pressed against it. The temperature and force of the water are conveniently controlled by the patient, care being taken to not use too much force. The patient is advised that whenever pressure is felt in the region of the cecum to stop the flow. The patient having been seated on the stool is directed to sit erect after a few minutes of rest when the water is introduced, giving the advantage of gravity in the elimination.

I have had no unfavorable results from this plan in the way of distension of the colon or irritation of the hemorrhoidal vessels although it has been used almost daily for several years. I direct occasional application of oil or vaseline to the rectum.

Very truly yours,

W. S. LINDSAY.

R

Chronic Laryngotracheitis Following Roentgen-Ray Therapy of Neck

M. L. Harris, Brooklyn (*Journal A.M.A.*, April 25, 1925), reports a case of hyperthyroidism, treated with the roentgen rays. The hyperthyroid condition was improved, but the patient died from the destructive effects of the roentgen rays.

THE JOURNAL

of the

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W. E. McVEY, M.D. - - Editor

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WHY NOT MORE NECROPSIES

Attention was called to what seems to be a haphazard system of practice in one particular field of medicine in a previous number of the Journal. Perhaps such a criticism might be considered not inapplicable to the practice of medicine in general. It may not be out of place to suggest that a more careful and painstaking investigation of pathological conditions found and a correlation of these conditions with the clinical symptoms should not be left entirely to the research departments of our teaching institutions. Such investigations if prosecuted, as a rule, by general practitioners would yield a much larger volume of information.

Data from a larger aggregate number of cases than it is possible to study in the hospitals alone would be available for comparison and the conclusions reached should be more definite and more reliable.

In order that any data furnished by a general practitioner may be reliable it is essential that: first, he should adopt the routine practice of keeping clinical records of all his cases, that these records should include complete case histories and carefully noted physical findings, laboratory findings and details of the progress of the case. A routine practice of this kind will

very materially increase one's powers of accurate observation and itself make him more efficient in diagnosis. Second, he must secure a necropsy, at least, in every instance where death occurs before a definite diagnosis has been made or when there is any reason to question the accuracy of the diagnosis.

The great importance of a necropsy has been very convincingly pointed out in the paper read by Dr. H. R. Wahl at the last annual meeting of the society and published in this number of the Journal. Perusal of this article, and the illustrative cases reported, will recall to the mind of anyone who has practiced for a few years many instances where a necropsy would have been of inestimable value both to his knowledge and his peace of mind.

Indifference on the part of the doctor and sentiment on the part of the public are responsible for the infrequent post mortem examinations. Perhaps one sometimes mistakes his indifference for a consideration of the sentiment the friends of the deceased are presumed to hold. In some cases this is an error which a little effort on his part would discover. In many cases it is impossible to secure permission to hold a necropsy, but in many others a refusal is too confidently anticipated.

The important information to be obtained by the necropsy should be sufficient justification for its urgent demand in all cases where the cause of death is at all in question. The relation of the general practitioner to the people, especially to his clientele, excuses his timidity in urging what he believes is likely to wound the sensibilities of his patrons. It is to some degree a business proposition. No doubt the people can be educated to expect and to consider with favor a request for a necropsy in all such cases. By ordinary methods it would be a discouraging undertaking and would meet with considerable opposition.

One might suggest that the most promising method for teaching the people to accept a necropsy as a usual procedure in cases of death would be by demonstration.

Presumably a necropsy is requested to satisfy the curiosity of the doctors in the case, to satisfy themselves if their diagnosis was correct or to determine a matter in question.

Let the people understand that they have the opportunity and the privilege to determine if the doctor in attendance was or was not correct in his diagnosis.

In fact it might be well to revise the statutes so that in case of doubt either the attending physician or the friends of the deceased may demand a post mortem examination. Such a demand should be made upon the coroner of the county who should appoint some one to conduct the examination, send apparently diseased organs and tissues to the laboratory of the school of medicine, and make an official report of his findings and the laboratory reports.

There is less doubt as to the attitude of the people toward such a proposed law than as to the attitude of the medical profession.

The people have everything to gain and nothing to lose except a little matter of sentiment. On the other hand the doctors reputation is at stake. A few necropsies on the cases he has failed to cure may mean the beginning or the end of a promising career.

Would the members of the medical profession be willing to take the risk?

R

CHIPS

"Proteinogenous Amines" are the laziness microbes causing spring fever. They are said to be ammonia compounds from eating too much protein food. The bug has the right name, but it gets in its dirty work by the patient following the line of least resistance and thus leaving the amine undisturbed in the colon and letting it molt.

No doubt many of us are a little thoughtless in referring patients who have defective vision to opticians instead of oculists. The Gerry Optical Company of Kansas City, recognizing that serious pathology may exist and escape the observation of an optician, has refused to fill prescriptions for lenses except those written by graduates in medicine. This is a policy that could be adopted by pharmacists with considerable benefit to the profession and to

the public. It is also a policy that deserves encouragement.

A study of the effects of the injection of the extracts of the glands of internal secretion upon the function of the stomach was reported by Shibata in the *Japan Medical World* for April. He found that extracts of thyroid, suprarenal capsules, thymus and testicle inhibit the secretion of the stomach juice and more or less retard the evacuation of the gastric contents into the duodenum. The extracts of the suprarenal capsules, thymus and testicles lowered the acidity of the gastric juice. The extracts of corpus luteum accelerated to a certain extent the gastric secretion and the evacuation of the gastric contents into the duodenum.

Lt. J. E. Potter, M.C.U.S.N. in his report on the use of "mercurochrome—220 soluble" in the *Naval Medical Bulletin*, May, states that too large doses cause severe reactions necessitating the patient being put to bed. He believes it can be administered advantageously to ambulatory patients by giving smaller doses over longer periods with longer intervals between injections. He used as the initial dose, 10 c.c. of a 1% solution freshly prepared, increasing the dose 5 c.c. at 48 hour intervals, unless the patient showed signs of approaching saturation—prickling and tingling sensations at the ends of the fingers and other cutaneous surfaces. Patients who respond best to intravenous mercurochrome injections have mild reactions.

He found gentian violet very disappointing in that in therapeutic doses it produced marked depression of the cardiovascular system in numerous instances; and in that some patients after the intravenous administration of the drug assumed a marked bluish cutaneous hue—even the cornea turned blue.

A letter, postcard, parcel, or newspaper, entering the mails is simply a piece of mail. If, because of inadequate or incorrect address, and, in the case of the package—improper wrapping—a piece of mail must be taken out of the regular postal machinery for "directory service" or "hospital service," it becomes a *Nixie*. If the postal sleuths are able to correct the address, or return to sender for a better one, it again becomes a piece of mail—though "delayed mail" is the better sobriquet.

If, after an exhaustive effort, the postal "detective" must give up the puzzle, and

there is no return address, the piece of mail is consigned to the Dead Letter office, where it again changes its name to dead letter or dead parcel, as the case may be.

Its period of existence as a *Nixie* is the most expensive one. It demands special attention from the very best clerks. Valuable time is spent in its behalf, time which also may prove more costly to the mailer or intended recipient through the attendant delay. But in the long run, the postal service loses most. In Chicago 400 workers do nothing but handle Nixies. In New York the service costs \$500 daily. In all the nixie costs the government about \$1,740,000 a year.

The Surgeon General, U. S. Public Health Service, has issued general instructions to remove from the clinical record files as many of the used X-ray films of inflammable type as are not essential for record purposes. The storing of nitrocellulose films, especially when filed as a part of the clinical records, is, of course, well known to be a serious fire hazard and in conflict with the fire regulations of most cities. Boards of medical officers have been called in the various Marine Hospitals for the purpose. One of the larger institutions has eliminated approximately 600 pounds of the old style used films from its records. The material has a small sales value. The use of fire-resisting films which are not more inflammable than ordinary paper, and the storage of which, therefore, presents no special problem, was introduced in all Marine Hospitals on July 1, 1924.

The following is an extract from a very important Supreme Court decision, referred to in the report of the Attorney for the Defense Board: "Applying these settled principles of law to the evidence, no question is raised that the defendant did not possess the requisite learning and skill. There is nothing to indicate that the method used in setting the broken leg at the farm was improper. The evidence showed that the proper practice, and hence ordinary care and diligence required, when plaintiff was brought to the hospital where there was an X-ray machine, an X-ray picture should have been taken, in fact, two should have been taken, one front view and one side view. The medical evidence would indicate that the X-ray had been used so long and so generally in diagnosing fractures or bone conditions and for the purpose of seeing if a fractured bone had been in apposition and proper alignment, that

it should be used as a matter of course when available, and not to use it under such circumstances is negligence. The X-ray was not used, though available."

Those who have followed the successive changes of view regarding the dietotherapeutic role of lactic acid-producing microorganisms since the pioneer writings of properly set and the ends of the bone were Metchnikoff on this subject, must have wondered how any feature of it can have retained scientific stability. Claim after claim has been hastily set up, only to be abandoned after a short period. Yet the practical use of the types of bacteria here concerned somehow persists in one form or another with a pertinacity that challenges some attention. Recent investigations seem to indicate that the Bulgarian bacillus cannot be implanted in the human intestines. For this reason, doubt has been cast on any alleged physiologic action of this organism in the intestine.

Preference has latterly been given to *Lactobacillus* (*Bacillus*) *acidophilus*, based on claims of superior possibilities of alimentary implantation. Recent investigations give evidence that *Lactobacillus bulgaricus* differs from *Lactobacillus acidophilus* in the ability of the latter to live in the intestinal tract. (*Jour. A.M.A.*, Apr. 25.)

The Phlorhizin Test in the diagnosis of pregnancy is made by injecting 0.002 gm. of phlorhizin into the gluteal muscles of the patient, who has been fasting. The patient drinks 200 c.c. of water. Immediate test of the urine for sugar serves as a control. Six specimens of urine are examined, at fifteen minute intervals, for glycosuria. If glycosuria is provoked, the test is reported as positive; otherwise negative. Reports on the reliability of the test are conflicting. (*Jour. A.M.A.*, Apr. 25.)

A boy who was known to have had diabetes gained in carbohydrate tolerance and improved in his physical condition. He was killed by accidental fracture of the skull. An immediate postmortem examination showed changes in the pancreas that may be interpreted as evidence of regeneration of the cells of the islets of Langerhans. The findings suggest the possibility that there has been regeneration or formation of new islets since the insulin treatment was begun. Thus there is the possibility that in juvenile diabetes there may be actual anatomical improvement under in-

sulin treatment. (*Jour. A.M.A.*, Apr. 18.)

It has been shown that long continued heating of some of the cinchona alkaloids, particularly quinin, with weak organic acids caused the formation of an isomer, erroneously called "quinotoxin," but more properly named quinicin. These isomers were reported to be quite poisonous. However, Sollmann reviewed the question and concluded that there is no occasion to fear toxic effects from the transformation of quinin into "quinotoxin" and that this substance is not especially toxic in the quantities that might be formed in the body. Mixtures of quinin and acetylsalicylic acid decompose slowly, but they do not become appreciably toxic. (*Jour. A.M.A.*, Apr. 4.)

Generations of laymen as well as physicians have somehow assumed that part of the beneficial effects of outdoor life is attributable to sunshine. The influence of sunlight on health and disease is being unravelled gradually. An impetus to the study has been derived from the investigations of the biologic actions of light, particularly as they are related to dietary deficiencies. It is now clearly established that exposure to ultraviolet radiations will protect against the effects of the lack of antirachitic factors in the diet. Furthermore, foods may acquire antirachitic properties by being irradiated. Recent experiments on the effect of radiation on the bactericidal power of the blood indicate that the exposure of the skin of animals to a source of ultraviolet radiation gives an increased bactericidal power to the blood and serum. It has been found that irradiation for purposes of treatment must be carefully graded, since excessive exposures cause a deterioration of the blood no less striking than the improvement obtained with smaller doses. (*Jour. A.M.A.*, May 16, '25.)

Postoperative tetany has been relieved by parathyroid grafting. This fact, in connection with other obvious considerations, has prompted the belief that the parathyroid supplied an indispensable hormone to the body. The attempts to use desiccated gland substance or extracts in a replacement therapy have not, as a rule, been attended with success. However, Collip has succeeded in preparing extracts of parathyroid glands that control or prevent tetany in parathyroidectomized animals, and permit them to live. The active principles in this extract produces its effect by causing the calcium content of the blood serum to

be restored within normal limits. Coincident with the marked improvement observed after the use of the active extract, a rise in blood calcium has been noted. It has been found that an overdosage with the active extract may push the rise of blood calcium to a condition of hypercalcemia that may even become fatal. These findings on animals warn against careless applications of the new discovery to man and extol the advantage of animal experimentation as a preliminary to human therapy. (*Jour. A.M.A.*, May 16, '25.)

With the demonstration of a sound scientific basis for heliotherapy as well as actinotherapy with artificially generated radiations, notably as they apply to the treatment or prevention of rickets, new hopes were placed in the efficacy of sunlight. Unfortunately, there is likely to be some disappointment. A comparison of the yearly amount of sunshine in cities in the temperate zone demonstrates that there is no close parallelism between the incidence of rickets and annual sunshine. The determining factor, is the quality, not the quantity, of the sun's rays. The results of heliotherapy during the winter months have been disappointing. Physicians should be prepared, where advisable, to counsel supplementing nature's niggardly sunshine with the results of man's discoveries. It should no longer be difficult to protect children from rickets; and as antirachitic action consists in the induction of calcium assimilation and its conservation, this is a matter that concerns not only the young but also the adult. (*Jour. A.M.A.*, May 30, '25.)

Those who have delighted in reading the "Fables of a Kansas Doctor" that have occasionally appeared in the Journal will be glad to know that these and other short stories by the same author are being compiled and will be published in book form by the author. Those who would like to have a copy of the book when completed should write to Dr. John A. Dillon, Larned, Kan.

—R—

Proceedings of the Fifty-Ninth Annual Meeting of the Kansas Medical Society, Held in Topeka, May 5, 6 and 7, 1925.

MEETING OF THE COUNCIL

The Council of the Kansas Medical Society met in the Jayhawker Dining room of the Hotel Kansan at 12:15, May 5th.

Luncheon was served, each Councilor paying for his meal.

Meeting was called to order by the President, Dr. Alfred O'Donnell. Those present were: Dr. P. S. Mitchell, Dr. O. P. Davis, Dr. E. S. Edgerton, Dr. E. G. Mason, Dr. J. D. Riddell, Dr. D. R. Stoner, Dr. W. F. Fee, Dr. Geo. M. Gray and Dr. J. F. Hassig.

Dr. Edgerton, Councilor of the Sixth District, presented the case of Dr. R. Claude Young of Arkansas City, which he had appealed to the Council from the action of Cowley County Medical Society. The case was set for hearing that evening, immediately following the meeting of the House of Delegates.

The Council met in the Senate Chamber of the State House, May 5th, about 10:45 p. m., just after the adjournment of the House of Delegates, to consider evidence in the case of Dr. R. Claude Young of Arkansas City, who had appealed his case from Cowley County Medical Society. The following members were present: Dr. Alfred O'Donnell, Dr. Geo. M. Gray, Dr. O. P. Davis, Dr. E. S. Edgerton, Dr. E. G. Mason, Dr. J. D. Riddell, Dr. D. R. Stoner, Dr. W. F. Fee and Dr. J. F. Hassig. Three witnesses were called and examined: Dr. J. H. Douglass, Secretary of Cowley County Medical Society, and Dr. E. F. Day, both of Arkansas City. Owing to the lateness of the hour, the lights were extinguished in the State House, the Council adjourned to the Hotel Kansan, where the meeting was resumed in the Jayhawker room.

Dr. R. Claude Young, Dr. L. R. Ferguson and Dr. H. L. Snyder testified, after which the Council sustained the action of Cowley County Medical Society against Dr. Young by unanimous vote. The meeting adjourned about 2 a. m., May 6th.

MEETING OF THE HOUSE OF DELEGATES

Meeting was called to order by the President, Dr. Alfred O'Donnell, at 8 p. m. May 5th, in Representative Hall, State House, Topeka, Kansas. The following order of business was observed:

Reading of minutes of last meeting.

Reports of Secretary, Treasurer, Councilors and Medical Defense Board.

Reports of Standing Committees.

Unfinished Business.

New Business.

Reading of minutes of last meeting was dispensed with, on motion of the House,

having been previously published in the Journal.

SECRETARY'S REPORT

To the House of Delegates, Kansas Medical Society:

I desire to make the following report of the year ending May 1st, 1925:

Balance on hand May 1st, 1924:

Medical Defense -----	\$4,601.69
General Fund -----	7,450.93

Total -----	\$12,052.62
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Cash received from all sources for year ending May 1st, 1925:

Dues from members -----	\$4,545.00
Received from editor -----	210.52

Total Cash -----	\$4,755.52
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Total -----	\$16,808.14
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Expended:

Medical Defense -----	\$2,045.04
General Fund -----	4,171.75

Total Expenditures -----	\$6,216.79
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Balance -----	\$10,591.35
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Standing of Funds:

Medical Defense -----	\$4,071.65
General Fund -----	6,519.70

Total -----	\$10,591.35
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I am very glad to be able to report to you that the membership of the Kansas Medical Society for the year just ended is practically the same as it was in 1924. On the other hand I am sorry to report that the expenditures of the Society have exceeded the receipts by \$1,072.40.

This is due to the fact that there has been a material increase in each of the different departments of the Society. For instance, in my office there was an increase of about \$200.00 over the previous year, \$180.00 of which was paid my stenographer as an increase in salary, allowed by the House of Delegates at the last meeting of the Society. The balance went for stamps, stationery, etc.

There are just two ways of overcoming this deficiency. One is to decrease the expenses—if it can be done—and the other is to increase the membership dues. The latter was recommended by the Council at the mid-winter meeting and is to come up before the House of Delegates this year for your consideration.

I want to express my gratitude to the secretaries of the local societies for their co-operation during the year. The steady maintenance of our membership is evidence of their continued efforts, and I thank them. I also desire to express my appre-

ciation to the officers of the State Society and to the members of the local societies for their help and support during the past year.

To the members and to our honored guests who have so kindly and generously given of their time and talent which has made possible an interesting and instructive program, I give my hearty thanks.

Lastly, but with no decrease of appreciation, I thank the American Medical Association for the courtesy they have extended our Society by sending Dr. Mitchell as a representative to this meeting.

Respectfully submitted,

J. F. HASSIG, *Secretary.*

Report accepted and filed.

TREASURER'S REPORT

To the House of Delegates, Kansas Medical Society:

As Treasurer of this Society, I desire to make the following report for the year ending May 1st, 1925:

Balance on hand May 1st, 1924:

Cash	\$3,047.90
Second Liberty Bonds	3,000.00
Third Liberty Bonds	1,500.00
Certificates of Deposit, Riverview State Bank	1,500.00
	2,000.00
	2,000.00

Total Cash and Assets.....\$13,047.90

Cash balance in bank May 1st, 1925.....\$ 2,975.50

Liberty Bonds, all registered in the name of George M. Gray, Treasurer of the Kansas Medical Society or his successors.....6,000.00

Certificates of Deposit in Riverview State Bank in name of George M. Gray, Treasurer, Kansas Medical Society or his successors.....3,000.00

Total Cash and Assets.....\$11,975.50

One year ago our total cash and assets were.....\$13,047.90

This year.....11,975.50

\$ 1,072.40

Showing that the past year our expenditures exceeded our income by \$1,072.40.

Expenditures for year from May 1st, 1924, to May 1st, 1925:

GENERAL FUND

Voucher Number	Payee	Amount
62	Grace House, Wichita	\$ 10.00
63	Hotel Lassen, Wichita	37.08
64	Hotel Lassen, Wichita	16.00
65	Dr. W. E. McVey, Topeka	1,800.00
66	Dr. J. F. Hassig, Kansas City	924.05
67	Dr. W. C. Campbell, Memphis	64.16
68	Dr. Wm. H. Vogt, St. Louis	65.66
69	Dr. Chas. O. Giese, Colo. Springs	45.96
70	Dr. E. E. Liggett, Oswego	5.48
71	American Medical Assn., Chicago	22.07
72	Dr. J. F. Hassig, Kansas City	695.74
73	Dr. P. S. Mitchell, Iola	16.88

74	Dr. E. S. Edgerton, Wichita	32.82
75	Dr. J. A. Dillon, Larned	39.70
76	Dr. C. S. Kenney, Norton	46.49
77	Dr. E. G. Mason, Cawker City	31.00
78	Dr. J. T. Axtell, Newton	25.86
79	Dr. D. R. Stoner, Ellis	43.68
80	Dr. C. C. Goddard, Leavenworth	7.50
81	Dr. O. P. Davis, Topeka	11.76
82	Dr. W. F. Fee, Meade	47.50
83	Dr. W. F. Fee, Meade (Visit Finney County)	21.50
84	L. C. Fields, Florist, Kansas City	20.00
85	Kansas Bankers Assn., Topeka	7.50
86	St. Louis Button Co.	19.90
87	Evans Press, printers, Kansas City	113.50

\$4,171.75

DEFENSE FUND

Voucher Number	Payee	Amount
36	O. E. Hungate, Topeka (oustanding 1924)	\$ 75.00
37	Dr. O. P. Davis, Topeka	10.00
38	O. E. Hungate, Topeka	149.14
39	O. E. Hungate, Topeka	100.76
40	O. E. Hungate, Topeka	75.00
41	Dr. O. P. Davis, Topeka	75.00
42	O. E. Hungate (Duplicate)	---
43	O. E. Hungate	99.72
44	O. E. Hungate	202.55
45	O. E. Hungate	135.18
46	Dr. O. P. Davis, Topeka	75.00
47	O. E. Hungate, Topeka	267.25
48	O. E. Hungate, Topeka	170.66
49	O. E. Hungate, Topeka	75.00
50	Dr. O. P. Davis, Topeka	75.00
51	O. E. Hungate, Topeka	75.00
52	O. E. Hungate, Topeka	75.00
53	J. D. M. Hamilton, Topeka	75.00
54	J. D. M. Hamilton, Topeka	234.78
		\$2,045.04

Total Expenditures:

Defense Fund	\$2,045.04
General Fund	4,171.75
Liberty Bond	52.39
	\$6,269.18

Resources:

Cash received from dues and turned over to me by Secretary	\$4,755.52
Cash from interest on bonds and securities	441.26

Total Cash	\$5,196.78
Expenditures	\$6,269.18
Total Income	5,196.78

Difference	\$1,072.40
Your expenditures for honor guests last year amounted to	\$ 205.61
The publication of the Medical Journal of which there was returned	\$1,800.00
	210.52
	\$1,589.48

leaving a balance of \$1,589.48, which is the expense incurred in the publication of the Journal.

If we are to continue the medical defense and the publication of the Journal and other activities of the Society, it is perfectly plain that we will of necessity require a greater income, and our only means

of obtaining this is an increase in the annual dues.

Respectfully submitted,

GEORGE M. GRAY, *Treasurer*.

Report accepted and filed.

Councilors' Reports

Reading of the Councilors' Reports was dispensed with, and motion made that they be handed to the Secretary for publication in the Journal.

First District—Dr. S. Murdock, Jr., Sabetha, Councilor. No report received.

Second District—Dr. C. C. Goddard, Leavenworth, Councilor, deceased. No report.

Third District—Dr. P. S. Mitchell, Iola, Councilor, gave the following report:

To the Secretary and Council of the Kansas Medical Society: I beg leave to offer the following report: All counties are well organized except Chautauqua, which as always is so sparsely settled as not to have enough to keep on a working basis. Neosho county remains organized, but has no meetings on account of lack of interest. I have consulted with many men in this district and there seems a strong feeling towards reviving the old Southeast Kansas Society, meet twice a year, keep the county societies intact, for organization purposes only. I think an experiment will be tried along that line this fall. P. S. MITCHELL.

Fourth District—Dr. O. P. Davis, Councilor, gave the following report: To the House of Delegates, Kansas Medical Society: The condition of the Fourth District is excellent. There are only two active societies in this district, these two societies drawing their membership from the counties adjacent to the two whose names they respectively bear. The Shawnee County Society has 137 members, derived as follows: Shawnee 112, Osage 7, Jefferson 10, Jackson 1, Wabaunsee 6, Pottawatomie 1. This society has lost 6 during the year, 4 by death and 2 by suspension for non-payment of dues. Ten regular meetings and three special meetings have been held, all well attended. Seven distinguished men from outside have addressed the society the past year, as follows: Dr. Schwarz, St. Louis; Dr. Engman, St. Louis; Dr. Dandy, Baltimore; Dr. Edwin M. Miller, Chicago; Dr. J. W. Kennedy, Philadelphia; Dr. H. M. Connor, Rochester, Minn.; Dr. R. S. Dinsmore, Cleveland.

The Lyon County Society has 33 members, derived as follows: Lyon 20, Morris 2, Chase 5, Osage 1, Coffey 1, Greenwood 4.

This society has lost one members by death, and none from suspension. Eleven regular meetings have been held and four special. Five invited or special speakers from outside have addressed the society. This live society has had a most excellent year.

Geary county is understood to be still nominally organized, but inactive.

Respectfully submitted,

O. P. DAVIS, *Councilor*.

Fifth District—Dr. J. T. Axtell, Newton, Councilor. No report received.

Sixth District—Dr. E. S. Edgerton, Wichita, Councilor. No report received.

Seventh District—Dr. E. G. Mason submitted the following report: Rooks county has never been organized. Nearly all the doctors of the county are members of the State Medical Society, and hold their memberships in adjoining counties. Osborne county is well organized and all the doctors are in good standing. They have meetings occasionally. Jewell county is fairly well organized but not holding many meetings. Mitchell county is organized and the majority of the doctors are members. There are two or three doctors in the county who might be members, but so far have not seen fit to join. Republic county is 100 per cent as to membership, has meetings occasionally and attendance is good. Cloud county is in fair shape. Washington county maintains an organization and the majority of doctors are members. Clay county as usual is getting along nicely.

E. G. MASON, *Councilor*.

Eighth District—Dr. J. D. Riddell, Councilor, gave the following report: The Eighth District is well taken care of from the standpoint of organization. Ellsworth County is included with the Central Kansas District. Lincoln county reports a very good fellowship among all members in the county. Their meetings are not well attended, due perhaps to a lack of interest in the program. Dickinson county holds quarterly meetings. These meetings are well attended and considerable interest is shown. Ottawa county organized a local medical society the first of this year. All of the doctors in the county with one or two exceptions have joined the society. They have started out by holding monthly meetings with a 6:30 dinner for the members. This society is very enthusiastic about its work. Saline county is well organized and holds regular monthly meetings with a 6:30 dinner. These dinners are well attended and much interest is shown. There is generally some out-of-town doctor of note pro-

vided to give a scientific paper. Practically every doctor in Saline county that is eligible or can gain admittance to the Society, is affiliated.

J. D. RIDDELL, *Councilor*.

Ninth District—Dr. C. S. Kenney, Councilor, gave the following report: To the House of Delegates, Kansas Medical Society: I beg to make the following report of the condition of the Ninth Councilor District, comprising the counties of Smith, Phillips, Norton, Decatur, Rawlins, Cheyenne, Thomas and Sheridan. Two societies are maintained here, the Smith County Medical Society and the Decatur-Norton Counties Society. Both of them are in good condition. It has not been my pleasure to visit the Smith County Society this year, but have been in communication with its members a number of times.

Your Councilor has been called in to help smooth out the differences regarding the dismissal of a member from the Decatur-Norton County Society. The matter is still hanging fire but it is expected there will be a rehearing of this case later and an attempt made to iron it out with the members of that Society. There is nothing further to report of special interest, other than that the spirit of the members in north-west Kansas is of the very best. Many excellent meetings have been held and there is a great deal of enthusiasm and interest taken in both the scientific and social sessions that are held from time to time.

C. S. KENNEY, *Councilor*.

Tenth District—D. R. Stoner, Ellis, Councilor. No report received.

Eleventh District—Dr. J. A. Dillon, Councilor, gave the following report: This district has functioned about the same as in the past few years. The Seventh District Society had its Fall meeting at Larned, and Spring meeting at Great Bend. On both occasions there was a good attendance, and an interesting program was given. The next meeting will be held in Hutchinson in October. Dr. Bernstorff of Pratt, and Dr. Ross of Sterling, have promised us that no expense will be spared to make this an interesting meeting. If necessary, the complete funds of the organization, \$1.38, will be squandered. Up to the present time this society has been very unfortunate in the selection of a treasurer. But our present incumbent, Dr. Ross, has positively assured us that he has other means of support, so we should be able to pay at least part of our bills the coming year. The Barton County Society has had its regular

quota of good meetings for the year, which have been liberally attended by outside members of the profession.

J. A. DILLON, *Councilor*.

Twelfth District—Dr. W. F. Fee, Councilor, gave the following report: To the President and Council of the Kansas Medical Society: The Twelfth District is only fairly well organized, owing to the large territory and few physicians who are widely scattered in the far western counties.

The Meade-Seward Medical Society has all the eligible physicians in their territory in the society, also the Finney County Society. Both of these I visited last year and found them prospering.

Ford County Society I did not get to visit last year. I had all arrangements made to do so, on the night of their meeting, but was prevented from doing so by a very severe accident which occurred in the form of a collision between two jockies on the race track, whom I was called to attend.

As the Councilor is organizer, I have tried to organize a society along the Dodge City and Elkhart branch, but as yet have not been able to do so.

As peacemaker, there is very little to do along that line, as the western county men are working in harmony so far as I know, as I have not been called on to settle any disputes.

It is my opinion that as the towns increase in population in the western counties that other societies may spring up, but with the sparsely settled counties and the few physicians, it is an utter impossibility to do so. Will say, however, that wherever I can I try to get isolated men to join some society tributary to them. Am ever trying to increase the zeal of the members of the Society and to increase the membership in the State Society.

WM. F. FEE, *Councilor*.

REPORT OF THE MEDICAL DEFENSE BOARD

To the House of Delegates of the Kansas Medical Society: Your Medical Defense Board begs to submit the following report of its work during the past year. This report includes that of its legal department, which is enclosed herewith.

It will be seen that there has been quite an accession of new cases during the year, and that the cost of defending these cases is greater than in former years. There used to be better chances of getting such cases ruled out of court on demurrer or some other legal technicality. The lawyers

who bring these actions are apparently getting better acquainted with the intricacies of this peculiar branch of legal practice, and are less apt to be caught off guard than formerly. At any rate it is costing us more money each year to carry on this work.

At the last annual meeting the Chairman of this Board asked to be relieved. However, the House of Delegates thought otherwise, and the Council was given instructions to give him some compensation. A salary of \$25.00 a month was accordingly agreed upon by the Council. This will, of course, help to explain the increased expense of the past year.

The very satisfactory relations between Mr. Otis E. Hungate, our former attorney, and this Board, had to be terminated early in April, due to the appointment of Mr. Hungate to the district bench of Shawnee County. Mr. Hungate was a most capable and efficient counsel, and we parted with him regretfully, though gratified at his elevation to the judgeship.

After careful deliberation, the Board appointed to succeed Mr. Hungate, Judge John D. M. Hamilton, of the Topeka bar. Judge Hamilton comes to us with the very highest recommendations, and possesses attainments of the highest character, both legal and general. We feel that our interests will have the same skillful legal oversight that it has been our good fortune to enjoy under the previous distinguished attorneys of this Board.

We submit herewith a statement of the expenditures of the Board during the past year, together with a summary of the expenditures for the past eleven years.

EXPENDITURES OF DEFENSE BOARD

No.			
37 O.P.D.	Postage and supplies	10.00	
38 O.E.H.	Salary to May 22---\$	75.00	
	Exp. and p. d. Murray v. Williams----	74.14	149.14
39 O.E.H.	Salary to June 22---	75.00	
	Exp. and p. d. Adler v. Hertzler -----	25.76	100.76
41 O.P.D.	Salary, May, June, and July -----		75.00
42 O.E.H.	Salary to June 22, (dup. of No. 40, lost)---		75.00
43 O.E.H.	Exp. and p. d. Russell v. Newman-----	24.72	
	Salary to Aug. 22---	75.00	99.72
44 O.E.H.	Exp. and p. d. Higginbotham v. Warner, and Russell v. Newman -----	127.55	
	Salary to Sept. 22---	75.00	202.55
45 O.E.H.	Salary to Oct. 22---	75.00	
	Exp. and p. d. Smock v. Corwin and Bowse	27.95	

	Exp. and p. d. Bloyd v. Sutton and Newlon	32.23	135.18
46 O.P.D.	Salary Aug., Sept., and Oct.-----		75.00
47 O.E.H.	Salary to Nov. 22---	75.00	
	Exp. and p. d. Sutton v. Newlon -----	108.27	
	Exp. and p. d. Miner v. Stockwell -----	83.98	267.25
48 O.E.H.	Salary to Dec. 22---	75.00	
	Exp. and p. d. Russell v. Newman-----	95.66	170.66
49 O.E.H.	Salary to Jan. 22---		75.00
50 O.P.D.	Salary Nov., Dec., and Jan.-----		75.00
51 O.E.H.	Salary to Feb. 22---		75.00
52 O.E.H.	Salary to March 22---		75.00
53 J.D.M.H.	Salary to April 22---		75.00
54 J.D.M.H.	Salary to May 22---	75.00	
	Exp. and p. d. Parr v. Young -----	159.78	234.78

Total ----- \$1,970.04

EXPENDITURES OF MEDICAL DEFENSE BOARD, 11 YEARS

1914-15-----	\$ 1,254.95
1915-16-----	1,189.27
1916-17-----	777.45
1917-18-----	809.58
1918-19-----	759.41
1919-20-----	1,245.51
1920-21-----	1,458.35
1921-22-----	1,236.08
1922-23-----	1,310.96
1923-24-----	1,479.76
1924-25-----	1,970.04

Total, 11 years----- \$13,491.36

Average per year----- \$1,226.48

Respectfully submitted,

O. P. DAVIS,
D. R. STONER,
Defense Board.

REPORT OF ATTORNEY FOR DEFENSE BOARD

To the Medical Defense Board, Kansas Medical Society: As your counsel, I have the honor to submit for the consideration of your board the following report of the legal work handled by me and by my predecessor, Mr. Otis E. Hungate, from May 1st, 1924, to May 1st, 1925. During this period there have been filed ten new cases. Three cases have been settled, either by the defendants or by indemnity companies with whom the defendants were insured; one case has been dismissed and two have been tried, of which one resulted in a verdict for the defendant and one in a verdict for the plaintiff. There are at this time fifteen cases pending, most of which are ready for trial and will be disposed of this spring and during the coming fall. I am attaching hereto a compilation of all the cases that have received attention during the last year, with notations as to the character of

the case and its present status or disposition.

My report would not be complete if I were not to call attention to the fact that since the case of James vs. Grigsby, 114 K. 627, a majority of the cases are being tried upon the theory of the failure of the defendants to make use of the x-ray in the diagnosis of fractures or in the verification of the reduction of fractures. This case went to considerable length in discussing the use of the x-ray in the present day practice of surgery and has practically established a rule in Kansas that the failure to use the x-ray as indicated above is of itself negligence. The opinion is, of course, restricted to those instances where an x-ray is available for use.

SUMMARY OF CASES, MEDICAL DEFENSE BOARD, MAY 1, 1924, TO MAY 1, 1925.

Russell vs. Dr. J. R. Newman and Dr. C. F. Young. Failure to remove sponge after kidney operation. Filed May 28, 1921. Settled by indemnity company March 24, 1925.

Higginbottom vs. Dr. T. W. Warner. Failure to properly remove placenta. Filed April, 1923. Settled March 24, 1925, by indemnity company.

Parr vs. Dr. R. Claude Young. Negligent treatment of fracture of forearm. Filed July 11, 1923. Verdict for plaintiff for \$5,000 now pending on defendants' motion for new trial.

Adler vs. Dr. A. E. Hertzler. Surgical needle left in patient's head after operation for brain tumor. Filed July 30, 1923. Ready for trial.

Cutright vs. Dr. O. R. Brittain. X-ray burn. Filed January 10, 1924. Plaintiff died. The suit has been dismissed. There has been no revivor.

Smock vs. Dr. L. A. Corwin and Dr. W. G. Bouse. Failure to properly reduce and treat fracture of femur. Filed March 10, 1924. Ready for trial.

Anise Bloyd vs. Dr. Malcolm Newlon and Dr. J. M. Sutton. Failure to properly reduce a fracture of the femur. Filed April 25, 1924. Verdict for defendants.

S. W. Bloyd vs. Dr. Malcolm Newlon and Dr. J. M. Sutton. Action by husband for loss of services account negligence as set out above. Filed April 30, 1924. Ready for trial.

Beard vs. Dr. I. I. Smith, Dr. M. J. Dunbar and Dr. J. A. Jacobus. Removal of ovaries in violation of consent to operate. Filed June 12, 1924. Ready for trial.

Marken vs. Dr. A. K. Owen and Dr. G. A. Finney. X-ray burn. Filed September 8, 1924. Ready for trial.

Cross vs. Dr. R. Claude Young. Negligent operation on a wrong hip after a diagnosis of hip disease. Filed September 9, 1924. Pending on preliminary pleadings.

Dr. C. B. Stephens vs. Ketcham. Improper reduction of fracture, failure to make proper diagnosis, and negligent treatment in operation for gall stones. Action started on cross-petition of defendant. Filed October 25, 1924. Pending on preliminary pleadings. Motion on file to make Dr. G. S. Lambeth a party to suit.

Howard vs. Dr. J. D. Musick. Negligent use of insulin. Filed November 22, 1924. Pending on preliminary pleadings.

Parrish vs. Dr. Wm. T. McKay and Dr. Ernest S.

Day. Failure to properly reduce and treat fracture of tibia. Filed December 11, 1924. Pending on preliminary pleadings.

Barrett v. Dr. A. Bennie. Negligent puncture of bladder during childbirth. Filed February 6, 1925. Ready for trial.

Sterba vs. Dr. J. A. Hull. Failure to properly reduce and treat fracture of forearm. Filed April 15, 1925. Pending on preliminary pleadings.

*Schmitt, Executor, vs. Dr. C. F. McNair. Improper prescription of poison resulting in death. Filed April 15, 1925. Pending on preliminary pleadings.

LaTourette vs. Dr. G. M. Liston. Failure to properly diagnose and reduce a fracture of the astragalus. Filed April 24, 1925. Pending on preliminary pleadings.

Dr. C. J. Minor vs. Stockwell. Cross-petition alleging improper reduction of fracture. Dismissed upon a compromise by parties on settlement of doctor's account.

**Gough vs. Dr. E. A. Pickens.

Respectfully submitted,

J. D. M. HAMILTON, Attorney.

Report accepted and filed.

STANDING COMMITTEES.

Executive Committee of Council. Dr. O'Donnell made a verbal report, that there had been no meeting during the year.

Committee on Public Health and Education. No report.

Committee on Public Policy and Legislation. Kansas State Medical Society: Your committee on Public Policy and Legislation reports that nothing of great importance has come under our observation.

We prepared a bill providing that all persons who assumed the physical care of a human being for pay in Kansas should pass an examination in Anatomy, Physiology and Chemistry, under the direction of the Chancellor of the University of Kansas, preliminary to the examination by any medical board. This bill was not regularly introduced but was given to Dr. R. J. Morton, chairman of the Committee on Public Health in the senate, who submitted it to his committee for their approval, hoping to have them introduce the bill. Dr. Morton said they gave it scant consideration, and declined to introduce it. It was our idea that a short and simple bill might pass where a more elaborate one would fail.

Colorado has a bill requiring a preliminary examination such as this which seems to work well. Senator Getty of Wyandotte county, introduced a bill providing for an assessment on all doctors practicing medi-

*Two cases are pending upon this cause of action, one for the death, and the other for the pain and suffering during the patient's illness.

**This case is being handled at Wichita by local lawyers. Letters addressed to them asking for information remain unanswered.

cine in any county having a population of 110,000, or which might hereafter attain such population, the proceeds of which should be used for a medical library, accessible to all members of the medical profession. We felt that other counties might not care for such a law as in time several counties might have that population. We persuaded Senator Getty to change his bill so that it applies only to such counties as now have 125,000 population. This leaves out all counties except Wyandotte. We have received no suggestion for Medical Legislation outside of our committee and we conclude that the men generally agree with the suggestion of the American Medical Association, to be not overzealous in urging new medical laws.

Dr. Lindsay then read the bill mentioned in foregoing report, and motion was made and carried that it be reconstructed and presented again at next meeting of the legislature in 1927.

Report accepted and filed.

Committee on School of Medicine. To the House of Delegates: Your Committee on the Medical School reports as follows:

Since the meeting of the Society at Wichita one year ago, we have had four meetings of the entire Committee. These were held at Kansas City, Lawrence and Topeka. In addition to these called meetings each member has visited the school at Rosedale one or more times. While we are interested in the entire subject of Medical Education, we have felt that our main job for the year was to aid in the securing of an appropriation from the legislature to be used for the erection of two new buildings, a nurses' home and a laboratory building. These were planned for when the Medical School program was launched three or four years ago, and are now greatly needed. It is impossible to carry on the work in the present cramped quarters and with the present inadequate equipment. The early completion of these two buildings would have heartened us to keep on with the struggle until such a time when we might be able to see our dreams of a great medical center develop into a reality.

In view of the clear necessity for this appropriation for which we asked and in view of the fact that the profession of the state was almost solidly behind the move, and in view of the favorable reception to the plan expressed by a number of our lawmakers who were consulted before and during the meeting of the legislature, we felt

almost certain that the sum asked for, \$700,000, would be given to the school. As you are all doubtless aware, we failed completely to receive any aid. And we now face the necessity of continuing, for at least two years more or until the next meeting of the legislature, without any chance of relief.

Two things now seem imperative that we do: First, question ourselves as to the reasons for the failure of the appropriation to be made, and second, begin to lay plans for the future so that such a disastrous result may not happen again.

Very frankly and without waste of words, the injection into the problem of a proposition that had no business of being considered by friends of the institution, *viz.*, the removal of the present plant at Rosedale to Lawrence, was responsible, and nothing else, for the failure of the appropriation to be granted.

After several meetings of the committee with members of the faculty at Rosedale and the Chancellor of the University, at which time the whole matter of the School was discussed, we met, during the last few days of the legislature with the Ways and Means Committee of the House and Senate, and presented our needs. Almost the first question asked us was in regard to the removal of the School to Lawrence. We had assumed that the question of location had been settled when the present site was purchased and the present building erected. We attempted to keep this irrelevant matter out of the discussion, but it was soon seen that this was impossible for the seed had been too well sown. We do not feel that we should censure the legislative committees, for no intelligent set of business men could be expected to give us \$700,000 to erect two new buildings at Rosedale, while we at the same time were arguing among ourselves the advisability of moving the institution to some other location. To be certain that this was responsible for our failure, several members of these legislative committees were asked later for their reasons for their adverse action. The following letter received in answer explains the matter perfectly and is in substance the sentiment of everyone with whom we corresponded or consulted.

"My Dear Doctor: I have your inquiry concerning the appropriation for the Medical School. In reply I would say that the principal reason so far as the House Committee on Ways and Means was concerned for not making any appropriation for build-

ings for the Medical School was the fact that those charged with the responsibility of determining the policy of the School were unable to agree as to what the future policy of the school would be. So long as those in authority are unable to determine whether the school should be a united school or should continue as at present a divided school, and if the school in the future should be a united school and are unable to agree whether its permanent location should be at Rosedale or at Lawrence, and so long as this policy is not definitely settled, we felt it unwise to embark upon any building program for the School.

"I think that the Medical men of the State, the Board of Regents and the University authorities should agree upon some policy for the future of the school and when that is once definitely determined, I believe that the legislature will be willing to appropriate the necessary funds to establish a successful institution.

"I might add that so far as I am personally concerned, that until that policy is decided upon I would be unwilling to appropriate any considerable sum for the construction of buildings. You will agree with me that no business man would recommend any such investment as this building program calls for, so long as the future policy of the business is not settled within some reasonable degree of certainty.

"Very truly yours,
"H. E. Walter."

March 24th, 1925.

That you may fully understand the situation, the authorities of the medical school have been endeavoring for a year or two to get the "General Educational Board" to give us \$2,000,000 for our institution. This Board has been formed to handle the distribution of Rockefeller funds to needy and worthy schools. It is a great work and is entitled to our profoundest respect. They have given large sums to the Medical Schools of Colorado, Iowa and Minnesota and we have large hopes that we would be equally favored.

During the legislature the rumor was very earnestly circulated that we could expect no help from this source until Kansas consolidated the entire medical course and located the united school at Lawrence.

For the purpose of finding out if there was any basis for this rumor a letter was written to the Board at New York explaining our reason for the request and the following letter in answer from Dr. Abraham

Flexner, Director of the Board, is here appended:

"My Dear Doctor: I have your kind favor of March 23rd. I presume that the rumors in question refer not to the Rockefeller Foundation, but to the General Education Board which is endeavoring to co-operate here and there with medical schools.

"May I say in reply to your inquiry that the General Education Board does not originate policies and that we should not presume to express any opinion as to what action the state of Kansas should take in reference to its School of Medicine?

"With all good wishes,

"Very sincerely yours,

"Abraham Flexner."

March 26th, 1925.

In regard to the consolidation of the entire four year medical course at one place there has been a difference of opinion. We are aware of the fact that the General Education Board has said that it is not interested in a divided school and has refused aid to such institutions. With this opinion your Committee is in complete accord. We believe that medical educators generally are coming to the conclusion that a united school is superior to a divided school, such as we have at present in Kansas.

But we do not believe anyone was authorized to say that our school should be united and located at Lawrence before we could expect aid from the source mentioned. We would most surely appreciate and welcome help from them and we have hopes that this help may yet be forthcoming.

But let us understand that this project is our own, the chief responsibility our own, and the fact that the greater part of the funds must come from Kansas itself.

We do not believe that an attitude of sturdy self reliance and visions of our own, will lessen our chances of receiving the aid from the General Educational Board. Rather we feel that such a spirit will increase the probability of such help.

Briefly, but plainly, your committee is opposed to any plan that contemplates taking the school from Rosedale for the following reasons: First, the School was established at its present location in good faith and after due deliberation and continued discussion can only tend to show that we are such an unstable quantity that we do not know our own mind. Second, the fact that all the great medical schools are located in large cities with possibly two exceptions. Third, the lack of clinical

material in a town so small as Lawrence, which lack can be met in one way only, *viz.*, going out over the entire state and bringing in as clinical material patients who are not properly to be classed as such and at the expense of the physicians of the state. Such a method can not possibly bring about that spirit of co-operation that is so necessary if our school is to succeed.

The fact is that in two states where this experiment has been tried the exact opposite has occurred and a feeling of distinct hostility has resulted between the School and the general profession. In addition to the lack of clinical material for teaching purposes, it will be impossible to develop an out-patient department that is probably the most valuable part of the modern medical school.

Can anyone explain, for instance, should we move the school to Lawrence, where the material for teaching obstetrics is to come from? We know that well-to-do citizens of Lawrence will not have medical students as obstetricians for their wives and daughters. We know that there are not enough obstetrical cases in Lawrence among the poorer classes to furnish this supply. We know that the poor out over the state generally will not go there for their deliveries for they do not as a rule utilize the charitable facilities at their own home.

We know that the student body can not be utilized as material in this department, so where will this material come from? The answer is very obvious, it won't come. If we are not misinformed, one of the medical schools in a small city that has been the inspiration for much of the agitation here, had exactly twelve obstetrical cases in a year.

Fourth, the much greater expense in the matter of salaries for members of the faculty; the great majority of the teaching force must be full time men on large salaries.

Fifth, such a move will mean the establishment at Kansas City of another medical school. The vast clinical material of Greater Kansas City will be utilized by some other institution the minute we show that we do not appreciate it. It is in our mind to suggest that in the past this material has not been employed as it should have been.

In conclusion, your committee recommends the following:

First, that this Society definitely go on record as opposing any further agitation favoring the removal of the present clinical

work of the department at Rosedale to Lawrence, or any other place.

Second, that the entire four years of the medical school be united at the present location at Rosedale so soon as the facilities there will permit.

Third, that we as a profession over the state, get behind the institution and begin the campaign that is to come two years hence, at which time we hope that we will be able to convince those in authority of the needs of the institution and of the fact that we have a definite program worthy of such a profession as ours.

We wish finally to express our appreciation of the spirit of loyalty of those men on the faculty who have carried on the work in the face of great odds and often at a great personal sacrifice.

E. D. EBRIGHT, *Chairman*,
W. M. MILLS,
L. F. BARNEY,
C. H. JAMESON,
Committee.

Report was accepted, and the recommendations were adopted unanimously.

Committee on Hospital Survey. To the House of Delegates, Kansas Medical Society. Gentlemen: Your Hospital Committee desires to make the following report: Your Committee has co-operated with the Council on Medical Education and Hospitals of the American Medical Association, in so far as possible.

We have had inquiries during the year concerning hospitals located in small cities not accessible to any of your committeemen. I have corresponded with members of the Society in that city or vicinity but not with satisfactory results. I have visited a few hospitals personally and reported to the Council of the American Medical Association, but it seems to this committee that better results might be obtained if the Councilors of the several districts were instructed to make such investigations when requested by this Committee, as might be required in their district, and report same to the Committee of this Society on Hospitals.

The work done by this Committee seems to be appreciated by the Council on Medical Education and Hospitals, as indicated by attached letter from Homer F. Sanger, secretary of the Council on Medical Education and Hospitals. Respectfully submitted,

GEO. M. GRAY, *Chairman*,
JNO. L. EVANS,
W. M. MILLS.

Report accepted and filed.

Committee on Medical History. Dr. McVey made a verbal report of the work of this Committee.

Committee on Scientific Work presented the program as evidence of their work.

Committee on Necrology. Dr. E. E. Ligget, Chairman, gave the following report:

Since the report at the Wichita meeting in 1924, the Committee on Necrology has received information as to the deaths of thirty-six physicians in Kansas. This information was obtained from the Kansas Journal, the American Medical Journal, from obituary notices in the daily papers and from correspondence with the secretaries of the county societies and other physicians in the communities where the deaths occurred.

Of the sixty-one local societies, twenty-six report no deaths, sixteen report twenty-one deaths, nineteen make no report. But from other sources it was learned that in ten of these nineteen not reporting, there was a total of twelve deaths. In the unorganized districts there were three deaths, making a total of thirty-six.

Following the rule of adding two per cent to the number of deaths reported, on account of delayed reports and possible omissions, we may estimate the total number of deaths at thirty-seven.

According to the American Medical Directory, there are two thousand, four hundred and ninety-two physicians in Kansas. Thus these thirty-seven deaths are equivalent to fourteen and eighty-five hundredths per thousand. The Board of Health reports the percentage of deaths per thousand among the people throughout the state is nine and seventy-four hundredths for the year 1924, a lower rate by five than among the physicians. According to the Journal of the American Medical Association, the annual death rate of physicians in the United States for 1924 was seventeen and thirty-five hundredths per thousand. Therefore, it will be seen that our death rate among the physicians this year is less than the average for the profession in the United States.

Of the thirty-six whose deaths were reported, seventeen were active members of the Society, two were former members retired, twelve were non-members, and five were not given. Twenty-five were in active practice, and eleven were retired or very old.

Of the thirty-six decedents, two were between thirty and thirty-nine, inclusive,

three were between forty and forty-nine, inclusive, six were between fifty and fifty-nine, nine were between sixty and sixty-nine, eight were between seventy and seventy-nine, eight were over eighty. The youngest was thirty-two, the oldest eighty-eight. Of those eighty or over, two were eighty, one was eighty-two, one eighty-three, one eighty-five, one eighty-six, one eighty-seven, and one eighty-eight years old.

The cause of death was given in seven instances as senility. Heart disease caused six deaths, cerebral hemorrhage five, auto accidents two, obstruction of the bowels two. Kidney disease, arterio-sclerosis, pernicious anemia, purpura hemorrhagica, carcinoma, pneumonia and suicide, one each. In seven instances the cause of death was not given.

The shortest length of time from graduation was seven years, the longest was fifty-nine years. Two were graduated more than ten years and less than twenty, nine were more than twenty and less than thirty. Ten were graduated more than thirty and less than forty, nine were more than forty and less than fifty. Five were graduated more than fifty years ago.

The positions of honor and trust held were various. One had been in the newspaper business. One was the author of travel articles and poetry. One was president of the local branch and on the District Board of the Y. M. C. A. Four had been members of the School Board, and one Superintendent of Public Instruction. Two had been mayor of their cities, and two had been in the State Legislature. Three were Civil War veterans, one was a Confederate veteran. One had served as captain and one as major in the World War. One had been a major and surgeon in the national guard. One had been an assistant surgeon in the regular army. Two had been on the Pension Board. One had been a steamship surgeon in the Boer War. One was in the United States Public Health Service. One had been assistant at the Osawatimie State Hospital. One had been district surgeon of the Union Pacific railroad, and four others were railroad surgeons. Two had been teachers in medical schools. One had been county coroner. Two had been city physicians and four county physicians. One was Councilor for his district, and four were former presidents of our State Society.

The dates of death, by month, were as follows: One occurred during the last half

of April, 1924, and one the first half of April, 1925. Six occurred in May, six in June, two in July, five in August, none in September, two in October, none in November, two in December, three in January, one in February and seven in March.

The mortality was greatest in March, May, June and August. Cardio-vascular disease, including cerebral hemorrhage and arterio-sclerosis, caused twelve deaths, over one-third the total number. Next to this came senility, causing seven death. And automobile accidents caused two deaths.

1. MILES H. ANDERSON, Salina, aged 83, died June 5th, 1924. He was graduated from the Medical Department of the University of Louisville, 1867. He was not in practice.

2. WILLIAM C. BAIRD, Fulton, aged 88, died May 15th, 1924, of senility. He was graduated from the Eclectic Medical Institute, Cincinnati, 1872. He was not a member of the County or State Societies.

3. CALVIN W. BOBO, Altoona, aged 62, died recently (death reported *A.M.A. Journal*, April 4, 1925), at Lady Smith, of cerebral hemorrhage. He was graduated from the Eclectic Medical Institute, Cincinnati, 1899.

4. SILAS L. BROOKING, Kansas City, Mo., aged 77, died December 21, 1924, of cerebral hemorrhage. He was graduated from the Jefferson Medical College, Philadelphia, 1868, and from the University Medical College, Kansas City, Mo., 1895. During the Boer War he made three trips to Africa as a steamship surgeon. He was the author of several travel articles and of a volume of poems. In 1913 he served as assistant physician in the Osawatomie State Hospital. He had been Miami county physician and Paola city physician. Was a local surgeon for the Frisco railroad, examiner on the Pension Board, and a volunteer in the medical corps in the World War. Had been a member of the Miami County, State and American Medical Societies, but retired in 1920 to Kansas City, Mo.

5. GRANT GRETZ BROWN, colored, Wichita, aged 51, died suddenly of acute dilatation of the heart, March 23, 1925. He was graduated from the Howard University Medical School, Washington, D. C., 1899. Was the first and only colored member of the State Board of Directors of the Y. M. C. A. and was president of a local branch of that organization. He had been assistant county physician for seven years. Was a member of the Sedgwick County, State and American Medical Societies.

6. ALBERT LEE COFFMAN, Independence, aged 55, died April 26th, 1924, of cancer of the liver. He was graduated from the Marion-Sims Medical College, St. Louis, 1896, and was a member of the Montgomery County, State and American Medical Societies.

7. HOMER GARTON COLLINS, Topeka, aged 32, was killed in an automobile accident, July 5th, 1924. He was graduated from the Virginia Medical College, Richmond, 1917, specializing in dermatology and diseases of the genito-urinary system. He was a member of the Shawnee County, State, American Medical Societies, and a Fellow of the A.M.A.

8. THOMAS R. EDWARDS, Chanute, aged 57, died May 18th, 1924, of pernicious anemia. He was graduated from the Medical Department of the Kansas University, Kansas City, Kan., 1892. He was a laryngologist, and a member of the State and American Medical Societies.

9. THADDEUS C. FRAZIER, Coffeyville, aged 84, died January 2, 1925, at a hospital in Halstead, of pneumonia. He was licensed in 1901, but was not a graduate of a medical school, nor a member of our Society. He was a Confederate veteran and not in practice.

10. OLIVER J. FURST, Los Angeles, aged 67, died January 12th, 1925, of angina pectoris. He was graduated from the University College of Medicine, Iowa City, 1883. He had been mayor of Peabody, Kan., and a former president of our State Society, but had retired to Los Angeles.

11. J. B. GARDNER, Girard, aged 69, died August 14th, 1924, after a lingering illness. He was graduated from the Louisville Medical College, 1881, previous to which time he had been in the newspaper business. He had been county physician, and was a member of the Crawford County and State Societies, and of the National Association of Railroad Surgeons.

12. HENRY GEREON GRAHAM, Hazelton, aged 61, died May 16th, 1924. He was graduated from the Northwestern University Medical School, Chicago, 1893, specializing in research work and bacteriology. He was a member of the State and Mississippi Valley Societies, and a Fellow of the A.M.A.

13. CLARENCE CASE GODDARD, Leavenworth, aged 76, died January 28th, 1925, of cerebral hemorrhage. He was a graduate of Bellevue Hospital Medical College, 1873, with a post-graduate the following year. He had served as assistant

surgeon in the army for nearly fourteen years, mostly in the department of Missouri and western army posts. He retired from the army in 1887, and took up his specialty of mental and nervous diseases at Leavenworth. He was a member of Leavenworth County and State Societies, and a Fellow of the A.M.A. Was a surgeon for the Burlington railroad and a member of their society. He was a prominent Mason and had served in the State Legislature. He was president of the State Medical Society in 1911, and at the time of his death a valued member of the Council.

14. ELTON BROOK GRUBS, Emporia, aged 49, died at Kansas City, Mo., March 31, 1925, of dropsy following heart disease. He was graduated from the Ohio Medical University, Columbus, 1897.

15. LORENZO D. HAYNES, Erie, aged 69, died May 13, 1924. He was graduated from the Kansas City, Mo., Medical College, 1892. He was not a member of our Society.

16. JOHN L. HAYS, Howard, aged 87, died August 31, 1924, of senility. He was graduated from the Rush Medical College in 1871. Was a member of the American Medical Association.

17. ARTHUR F. HIGGINS, Emporia, aged 65, died recently. He was graduated from the Hahnemann Medical College and Hospital, Chicago, 1884, and had practiced in Emporia thirty years.

18. E. T. JOHNSON, JR., Burns, aged 45, was killed in an automobile accident, August 5th, 1924. He was graduated from the Kansas City, Mo., Medical College, 1904. He had practiced at Towanda, Wichita and Burns. He was a major in the World War, and a surgeon in the United States Public Health Service, but not a member of our Society.

19. CLEMENS KLIPPEL, Hutchinson, aged 72, died June 9th, 1924. He was graduated from the Rush Medical College, Chicago, 1885, and was one of the pioneer physicians of the state. He was a member of the Reno County and State Societies, and a Fellow of the A.M.A. Recently he had been president of our State Society.

20. JOSEPH H. LIGHT, Chanute, aged 80, died March 20, 1925. He was graduated from the Pulte Medical College, Cincinnati, 1887. Was not a member of the State or American Medical Associations.

21. FLETCHER R. MCGINNIS, Galena, aged 79, died June 8th, 1924, of pneumonia.

He was a Civil War veteran, licensed in 1901.

22. SAMUEL FOSTER MARCH, Kansas City, Kan., aged 74, died at Paola, August 23rd, 1924, of general dropsy following heart disease. He was graduated from the Eclectic Medical Institute, Cincinnati, 1884. He was Superintendent of Public Instruction of Miami county from 1880 to 1883. He was also a teacher in, and secretary of the old Eclectic Medical University of Kansas City, Mo., 1903. He was not a member of our Society.

23. WILLIAM MORGAN MARTIN, Wellington, aged 57, died after a long illness from cardio-renal disease, March 13, 1925. He was graduated from the St. Louis College of Physicians and Surgeons, 1891, and the Bellevue Hospital Medical College, 1894. He organized the County Board of Health and was the first county health officer of Sumner county. Had also served as city physician and as a member of the school board at Wellington. He was a surgeon, and a major in the national guard, and in the World War served in the medical corps as a captain. He was an active member of the Sumner County and State Societies and a Fellow of the A.M.A.

24. JOHN ALEXANDER NELSON, Tribune, aged 45, died May 4th, 1924, at the Northwestern Pacific Railway Hospital, St. Louis, Mo. He was graduated from the John A. Creighton Medical College, Omaha, 1906. He was a member of the State Society and a Fellow of the American Medical Association.

25. LAWRENCE REYNOLDS, Horton, aged 64, died October 7th, 1924, of intestinal obstruction. He was graduated from the Medical Department of the State University of Iowa in 1884. He was the founder of the Horton Hospital and a surgeon for the Rock Island railroad. He had been president of our State Society, and was a Fellow of the American Medical Association.

26. OSCAR F. SEARL, Solomon, aged 82, died July 19, 1924, of cerebral thrombosis. He was graduated from the Berkshire Medical College, Pittsfield, Mass., 1865. He was a Civil War veteran.

27. ALBERT G. SEXTON, Clyde, aged 70, died June 24, 1924, of cerebral hemorrhage. He was graduated from the Rush Medical College, Chicago, 1878. He was not a member of the State or American Medical Association.

28. HARRY R. SHUMARD, Clay Center, aged 52, on account of ill health, shot

and killed himself March 10, 1925. He was graduated from the Cincinnati College of Medicine and Surgery, 1902. Was a member of the State and American Medical Societies.

29. MILTON FACKLER SLOAN, Stillwell, aged 70, died May 11, 1924, of arteriosclerosis. He was graduated from the Louisville Medical College, 1876.

30. CLARENCE M. SMITH, Richland, aged 70, died June 15, 1924, of heart disease. He was graduated from the Eclectic Medical Institute, Cincinnati, 1885. He was not a member of our Society.

31. R. A. STEWART, Russell, aged 57, died March 28, 1925, from operative shock for obstruction of the bowel. He was graduated from the Kansas Medical College, Topeka, 1899. Was Russell county coroner, secretary of the United States Pension Board, and district surgeon for the Union Pacific railroad. He was a member of the Central Kansas, State and American Medical Associations.

32. CARTER WILLIAM WARD, Lenora, aged 39, died suddenly of cardiac dilatation June 6th, 1924. He was graduated from the Kansas University School of Medicine, 1910. He was a member of the Norton County, State and American Medical Associations.

33. CYRUS WESLEY, Dodge City, aged 61, died at Miami, Fla., of chronic interstitial nephritis, December 5th, 1924. He was graduated from the University of Louisville School of Medicine, 1888. He was a member of the Ford County and State Societies, and a Fellow of the American Medical Association.

34. NORTON P. WILLIAMS, Garden City, aged 80, died October, 1924. He was graduated from the Kentucky School of Medicine, 1876.

35. DAVID DILL WILSON, Norton, ville, aged 63, died August 3rd, 1924, of purpura hemorrhagica. He was graduated from Rush Medical College, Chicago, 1890. He had been a lecturer on orthopedics at the Kansas Medical College, Topeka. He was a member of the Shawnee County and State Societies and a Fellow of the American Medical Association.

36. EDWARD LAWRENCE WILSON, Marysville, aged 86, died after a long illness, February 16, 1925. He was not a graduate of a medical school, but had served as a medical officer in the Civil War, and was licensed in 1901. He had

been mayor of Marysville and had served two terms in the State Legislature.

Report accepted and filed.

Secretary's expense account from January 21st to May 1st, including salary from May 1st to April 30th, amounting to \$992.55, was allowed.

The following proposed amendment to the Constitution was unanimously adopted:

"Resolved, That Section I of Article XIII of the Constitution be amended by striking out '\$3.00' in the fifth line of said section, and inserting therefor '\$5.00', and that Section II of Article XIII be amended by striking out the word 'one' in the first line of said section, and inserting therefor the word 'two.'"

The following petition, relative to forming an Auxiliary was received, and unanimously adopted:

"We, Members of the Central Kansas Medical Society Auxiliary, do recommend that there shall be an auxiliary to the Kansas Medical Society, and we do herewith ask permission of the Kansas Medical Society, assembled in Topeka, that the wives and mothers there in attendance, be granted power to organize such an auxiliary, to be known as the Kansas Medical Society Auxiliary, composed of the wives and mothers of members in good standing of the Kansas Medical Society."

MRS. D. R. STONER,
President.

MRS. H. Z. HISSEM,
Vice President.

MRS. LEO V. TURGEON,
Secretary.

MRS. JONATHAN B. CARTER,
Treasurer.

Meeting adjourned.

MEETING OF HOUSE OF DELEGATES

House of Delegates met in the Senate Chamber, State House, at 9:30 a. m. May 7th. The following order of business was observed.

Roll Call. Election of Officers: President, three Vice Presidents, Treasurer, one Delegate to A. M. A. Councilors for Third, Fifth, Tenth and Twelfth Districts; and two years' unexpired term, Second District.

Unfinished business.

New Business.

These officers were elected:

President, Dr. F. A. Carmichael, Oswatomie.

Vice President, Dr. B. F. Morgan, Clay Center.

Vice President, Dr. J. E. Hawley, Burr Oak.

Vice President, Dr. F. H. Smith, Goodland.

Treasurer, Dr. George M. Gray, Kansas City.

Delegate to A. M. A., Dr. Alfred O'Donnell, Ellsworth.

Councilors for a term of three years: Dr. P. S. Mitchell, Iola, Third District; Dr. E. S. Edgerton, Wichita, Sixth District; Dr. D. R. Stoner, Ellis, Tenth District; Dr. Wm. F. Fee, Meade, Twelfth District. Dr. L. B. Spake, Kansas City, was elected to fill the two years' unexpired term of the Second District, caused by the death of Dr. C. C. Goddard.

The standing of the Council is as follows:

District	Councilor	Term Expires
First	Dr. S. Murdock, Jr., Sabeth	1927
Second	Dr. L. B. Spake, Kansas City	1927
Third	Dr. P. S. Mitchell, Iola	1928
Fourth	Dr. O. P. Davis, Topeka	1926
Fifth	Dr. J. T. Axtell, Newton	1926
Sixth	Dr. E. S. Edgerton, Wichita	1928
Seventh	Dr. E. G. Mason, Cawker City	1927
Eighth	Dr. J. D. Riddell, Salina	1927
Ninth	Dr. C. S. Kenney, Norton	1926
Tenth	Dr. D. R. Stoner, Ellis	1928
Eleventh	Dr. J. A. Dillon, Larned	1926
Twelfth	Dr. W. F. Fee, Meade	1928

The following resolution was adopted:

"Resolved, That it is the sense of the delegates here present, that in the election of the delegates to the A. M. A., the retiring president be elected for one year and a permanent delegate be elected from the members who are Fellows of the A. M. A. to serve four years."

Two committees were appointed to draw up appropriate resolutions concerning the death of Dr. Goddard and the death of Dr. Ebright's father.

Dr. Goddard's committee: Dr. O. P. Davis, Dr. James W. May and Dr. D. R. Stoner.

Dr. Ebright's committee: Dr. H. L. Snyder, Dr. H. E. Haskins and Dr. E. F. Day.

A rising vote of thanks was given Shawnee County Medical Society for their hospitality and assistance in making this meeting a success.

Meeting adjourned.

MEETING OF THE COUNCIL

The new Council met and organized in the Senate Chamber May 7th about 10:30 a. m. The following members were present: Dr. F. A. Carmichael, newly elected President; Dr. Geo. M. Gray, Treasurer; Dr. L. B. Spake, Dr. P. S. Mitchell, Dr.

O. P. Davis, Dr. E. G. Mason, Dr. D. R. Stoner, Dr. W. F. Fee and Dr. J. F. Hassig, Secretary.

Dr. C. S. Kenney was re-elected a member of the Defense Board.

Dr. W. E. McVey, editor of the Journal, gave the following report: The editor of the Journal begs leave to submit the following report for the year ending April 30, 1925:

Financial Statement of the Journal.

Receipts:

Sub. 1,516 members	-----	\$3,032.00
Advertising	-----	4,559.55
Sales and Subscriptions	-----	38.20
C. and C. Bureau	-----	169.38
Other sources	-----	1.10
Accounts due	-----	289.50
		\$8,089.73

Expenses:

Printing Journal	-----	\$2,224.00
Stock and Stationery	-----	758.46
Salaries and Wages	-----	2,790.00
Postage	-----	153.78
C. and C. Bureau	-----	59.59
Miscellaneous	-----	273.73
		\$6,259.56

Earned ----- \$1,830.17

Account of Editor With the Society.

Receipts:

Advertising	-----	\$4,559.55
Sales and Subscriptions	-----	38.20
C. and C. Bureau	-----	168.38
Kansas Medical Society	-----	1,800.00
Other Sources	-----	1.10
Due and payable	-----	289.50
		\$6,857.73

Expended:

Printing Journal	-----	\$2,224.00
Stock and Stationery	-----	758.46
Salaries and Wages	-----	2,790.00
Postage	-----	153.78
C. and C. Bureau	-----	59.59
Miscellaneous	-----	273.73
		\$6,259.56

Balance ----- \$ 598.17

Accounts due and unpaid	-----	\$ 289.50
Cash on hand	-----	308.67
		\$ 598.17

The Credit and Collection Bureau has been in operation for four years now. We have arrived at the conclusion that the principle in co-operative efforts of any kind and particularly in the matter of the collection of delinquent accounts does not appeal to the medical profession in Kansas. During the past year, 33 members of the society have sent delinquent accounts for collection and on these accounts \$1,117.60 has been collected. More than 75 per cent of the accounts are for small amounts, \$5 and less. At least two-thirds of the accounts are against people who have moved away from the addresses given us. The expense for postage and stationery amounts to more than does the commission on these small accounts. If the Bureau is to be continued it will be advisable to increase the

commission on accounts of \$5.00 or less to 50 per cent.

It is a question if the Bureau should be continued for the benefit of 2 per cent of the members of the Society. The commissions received for the year more than cover the expense for postage and stationery, and the work is done by the office force of the Journal. However, it does not seem justifiable to continue the Bureau, with the amount of time and labor required, unless a fair per cent of the members find it of service to them. We recommend that it be discontinued.

W. E. McVEY,
Editor.

It was decided to hold the next meeting in Kansas City, Kan., Tuesday and Wednesday and Thursday, May 4th, 5th and 6th, 1926.

MEETING OF COUNTY SECRETARIES

The secretaries of the County Medical Societies were guests of the State Society at a luncheon which was held as scheduled in the Jayhawker dining room of the Hotel Kansan at 12:15 p. m. May 6th.

Those present: Dr. Alfred O'Donnell, President; Dr. J. F. Hassig, Secretary; Dr. W. E. McVey, editor of the Journal, and the following secretaries, Dr. E. G. Brown, Topeka; Dr. P. S. Mitchell, Iola; Dr. R. G. Breuer, Norton; Dr. D. E. Bronson, Olathe; Dr. G. W. Bale, Clay Center; Dr. J. W. Sparks, Kansas City; Dr. H. L. Clarke, LaCygne; Dr. E. P. Sisson, Lawrence; Dr. S. P. Loomis, Lost Springs; Dr. A. B. McConnell, Burlington; Dr. H. E. Haskins, Kingman, and Dr. S. J. Schwab, Osborne.

The subject of arranging attractive programs to get the membership to attend meetings was mentioned, and a general discussion of the prosecution of osteopaths and chiropractors was held. The secretaries went on record as favoring a fund for the prosecution of certain cases.

The meeting lasted for two hours. Everyone seemed to have an enjoyable time and no doubt much benefit will be derived from the meeting.

GENERAL SESSION.

Tuesday, May 5th, 8:30 A. M.

The regular session of the Kansas Medical Society convened in Representative Hall, State House, to hear the address of the president and various scientific papers by the members and guests of the Society.

The Program.

President's Address, Dr. Alfred O'Donnell, Ellsworth.

"Medical Studies of the Misbehaved," Drs. C. F. and K. A. Menninger, Topeka.

Discussion opened by Dr. Curran Pope, Louisville, Ky.

"Modern Pathology in General Practice," Dr. H. R. Wahl, Dean Medical School, Rose-dale.

Discussion opened by Dr. Thor Jager, Wichita.

"The Physio therapeutic Treatment of Colitis," Dr. Curran Pope, Louisville, Ky.

"Kidney Function," Dr. H. E. McCarthy, Kansas City.

Discussion opened by Dr. A. D. Gray, Topeka.

"Correct Dose Measurements of Radiation to Malignancies and Other Tumors," Dr. Opie W. Swope, Wichita.

Discussion opened by Dr. Marion Trueheart, Sterling.

"The present Status of Medical Education," Dr. H. J. Duvall, Hutchinson.

Discussion opened by Dr. H. R. Wahl, Rosedale.

"Heredity," Dr. B. F. Morgan, Clay Center.

Discussion opened by Dr. F. A. Carmichael, Osawatomie.

"Medical, Surgical and X-ray Treatment of Goitre" (with moving picture of the Sloan Technique of Thyroidectomy), Dr. E. P. Sloan, Bloomington, Ill.

"Use of Skin Tests in Medicine," Dr. N. P. Sherwood, Lawrence.

Discussion opened by Dr. P. M. Krall, Kansas City.

Wednesday, May 6th, 8:30 A. M.

"Vomiting of Pregnancy," Dr. M. W. Hall, Wichita.

Discussion opened by Dr. E. A. Reeves, Kansas City.

"Glucose in the Vomiting of Pregnancy," Dr. W. H. Weidling, Topeka.

Discussion opened by Dr. J. D. Clark, Wichita.

"Diagnosis of Gall Bladder Disease," Dr. E. E. Morrison, Great Bend.

Discussion opened by Dr. J. D. Riddell, Salina.

"Experiences With Spinal Anesthesia," Dr. L. F. Barney, Kansas City.

Discussion opened by Dr. W. D. Storrs, Topeka.

"Humoral Eruptions" (Lantern Slides), Dr. M. F. Engman, St. Louis, Mo.

"Practical Points in Intestinal Obstruction," Dr. T. G. Orr, Medical School, Rose-dale.

Discussion opened by Dr. D. W. Basham, Wichita.

"Men and Medicine," Dr. A. R. Mitchell, Lincoln, Neb.

"Medical Education," Dr. E. H. Lindley, Chancellor, Kansas University, Lawrence.

"The Modern Conception of Peptic Ulcer With Report of Results of Treating 470 Cases by the Physiological Rest Method," Dr. Frank Smithies, Chicago.

"Diagnosis of Cardiac Arrhythmias," Dr. W. R. Dillingham, Salina.

Discussion opened by Dr. F. E. Wrightman, Sabetha.

Thursday, May 7th, 8:30 a. m.

"Sinusitis in Children," Dr. L. B. Spake, Kansas City.

Discussion opened by Dr. Geo. H. Litsinger, Topeka.

"I odine and Goitre," Dr. H. N. Tihen, Wichita.

Discussion opened by Dr. C. A. McGuire, Topeka.

"The Control of the Complications in the Treatment of Syphilis," Dr. C. C. Dennie, Medical School, Rosedale.

Discussion opened by Dr. R. W. Hissem, Wichita.

"Club Feet," Dr. H. R. Allen, Indianapolis, Ind.

"Some Observations Upon Artificial Pneumothorax," Dr. R. G. Breuer, Norton.

Discussion opened by Dr. E. N. Martin, Clay Center.

"Diverticulitis of the Colon," Dr. W. M. Mills, Topeka.

Discussion opened by Dr. M. G. Sloo, Topeka.

"Fractures," Dr. A. R. Hatcher, Wellington.

Discussion opened by Dr. M. L. Bishoff, Topeka.

"Some Phases of Gastric Surgery," Dr. H. M. Richter, Chicago.

"Some Successes and Failures in Obstetrics," Dr. R. A. West, Wichita.

Discussion opened by Dr. W. H. Weidling, Topeka.

"Malignant Cystic Ovarian Tumors," Dr. Jno. L. Grove, Newton.

Discussion opened by Dr. R. B. Stewart, Topeka.

Every essayist who was on the program appeared and read his paper. This is a record of which the Society should be proud, and surely one that can not be surpassed.

J. F. HASSIG, *Secretary*.

R

SOCIETIES

DOUGLAS COUNTY SOCIETY

The regular monthly meeting of the Douglas County Medical Society was held

at the Lawrence Country Club at Lawrence, Tuesday evening, May 19th.

Dr. Arthur E. Hertzler of Halstead, Kan., was the guest of the evening and presented a very interesting outline of diseases of the stomach as seen from the medical and surgical point of view.

Very truly yours,
EUGENE P. Sisson, *Secretary*.

COWLEY COUNTY SOCIETY

The regular meeting of the Cowley County Medical Society was held in Winfield, Kan., on May 21, 1925, at which time Dr. C. F. Menninger of Topeka, gave a very interesting and instructive talk on "Diagnosis of Neurological Diseases."

Arrangements are now being made for a picnic meeting to be held either in Arkansas City or Winfield in June or July.

J. H. DOUGLAS, *Secretary*.

MARSHALL COUNTY SOCIETY

The Marshall County Medical Society held its regular meeting, May 28. Dr. Victor Auchard of Irving, read a paper on "Birth Control" which was fully discussed by those present.

The Society decided to conduct a credit and collection bureau for its members.

J. W. RANDALL, *Secretary*.

CLAY COUNTY MEDICAL SOCIETY

The Clay County Medical Society met at Clifton with Drs. Porter and Van Scoyoc, May 14, with Dr. Risdon of Leavenworth, as speaker of the evening. His subject was "Goitre," which was generally discussed. On motion by Dr. Martin of Clay Center, an assessment of \$2.00 was levied on each member.

The doctors present were: Olsen, Scott, E. C. Morgan, B. F. Morgan, R. J. Morton, Martin, Earnest and Bale of Clay Center, Stillman of Morganville, Jackson of Wakefield, Potter and Van Scoyoc of Clifton, and Dr. Risdon of Leavenworth, Kan.

The following dentists were present: Osterhout, Kirby, Bonar and Weaver of Clay Center, Totten and Chestnut of Clifton.

The June meeting will be held at Morganville with Dr. Stillman.

G. W. BALE, M. D., *Secretary*.

MEDICAL WOMEN'S ASSOCIATION

The Kansas State Medical Women's Association met May 7th, in the House of Representatives at Topeka, at the close of the regular session of the State Medical Asso-

ciation. Dr. Florence Brown Sherbon presided.

The following program was carried out:

Report of National Medical Women's Association meeting, Elvenor Ernest, M. D.

Health Legislation in Kansas, Sarah Greenfield Stephenson, M. D.

Report of Legislative Committee, Winifred Viers Wooster, M. D.

Letters from absent members.

The School Child and Heart Strain, Mabelle True, M. D.

Women in Medicine, Florence Brown Sherbon, M. D.

After a dinner at the Hotel Kansan, the following officers were elected for the ensuing year:

President, Florence Brown Sherbon, M. D., Lawrence.

Vice President, Caroline Carr Juergens, M. D., Topeka.

Secretary-Treasurer, Ione Clayton, M. D., Arkansas City.

The Association adjourned to meet at the call of the president in September at Topeka.

GOLDEN BELT MEDICAL SOCIETY

Topeka, Kan., April 2, 1925.

Meeting called to order by President Karl Menninger.

Due to the lateness of the hour it was deemed advisable to start immediately with the scientific program. The first number of which was a very interesting and extremely practical talk by Dr. Jabez N. Jackson of Kansas City, Mo., on "Factors in Diagnosis of Appendicitis and Influencing Better Results." This was discussed by doctors Mills, Bischoff, J. D. Colt, Sr., and R. R. Cave. The discussion was closed by Dr. Jackson.

The next number was a paper by Dr. Earle G. Brown of Topeka, on "Syphilis and the Necessity for Its Control." It was discussed by Drs. Colt, Sr., Sherwood and Karl Menninger.

The next was a clinical case presented by Dr. Boggs from Christ's Hospital.

The next was a case history and findings presented by Dr. Karl Menninger, with x-rays showing tumor of brain. The patient failed to report.

The next was a case presented by Dr. Wm. Reed from St. Francis Hospital.

The next was a case presented by Dr. Bischoff from Stormont Hospital, "Double Extra-Uterine Pregnancy."

The next was a case by Dr. McGuire from Stormont Hospital, "Multiple Myeloma."

The Society then turned to the usual order of business.

Minutes of the previous meeting were read and approved.

The treasurer's annual report was given and accepted.

The secretary's annual report was given and accepted.

Bills amounting to \$43.85 were presented and ordered paid.

Applications for membership as follows were presented and referred to the committee on election: Dr. J. R. Bechtel, Lawrence; Dr. C. B. Johnson, Eudora; Dr. G. A. Attwood, Randolph; Dr. Elmer Butler, Quenemo; Dr. Paul R. Neal, Greenleaf.

The committee reported favorably on all the above applications and applicants were voted into the Society by an unanimous vote.

The following resolution was presented and voted on favorably by the Society and ordered placed on the minutes to be voted on at the next meeting.

Resolved that Article 5 of the constitution be changed to read, as follows:

"The officers of this Society shall consist of a President, First Vice President, Second Vice President, Secretary and Treasurer, combined, who shall be elected at the annual meetings each year, and who shall be elected at the annual meetings each year, and who shall hold their offices for one year, or until their successors are elected."

Article 5, Section 1, of the by-laws be changed to read as follows:

"The Secretary-Treasurer shall keep a correct record of all the proceedings of the Society and prepare the same for publication and shall have charge of, and carefully preserve all books, papers and other documents of the Society, and keep a list of the members and their postoffice address and notify any members of their election within thirty days thereafter; conduct any correspondence for the Society which may be necessary. He shall have charge of all funds of the Society; collect all fees, dues and fines promptly and keep a correct account thereof; pay out money only on orders signed by the President, which have been previously ordered paid by the Society. At each annual meeting the Secretary-Treasurer shall submit a detailed report of the condition of the Society, which shall contain an itemized list of moneys owed the Society, cash on hand, bills outstanding and money paid out by the Society during the preceding year. At the

expiration of his term he shall turn over to the newly elected Secretary-Treasurer all moneys, books, records, files and so forth belonging to the Society, which have been intrusted to his keeping."

The nominating committee for election of officers was appointed by the President as follows: Dr. W. A. Smiley, Junction City; Dr. B. F. Morgan, Clay Center; Dr. Benjamin Brunner, Wamego.

Report of nominating committee was as follows: Dr. J. D. Colt, Jr., President; Dr. Arthur Gray, First Vice President; Dr. W. E. Mowery, Second Vice President; Dr. R. R. Cave, Secretary; Dr. Geo. E. Brethour, Treasurer.

The report of the committee was accepted and each officer elected unanimously by the Society.

The Riley County Medical Society extended an invitation to the Golden Belt Medical Society to hold their next meeting at Manhattan in July. This was accepted by an unanimous vote of the Society.

A vote of thanks was extended to the Shawnee County Medical Society for the good time had by all.

The Society then adjourned to enjoy a buffet luncheon furnished by the Shawnee County Medical Society.

J. D. COLT, Jr., *Secretary.*

R

PERSONALS

Dr. H. H. Wilson, formerly of Salina, Kan., is now located at 519½ North Main street, Wichita, Kan.

Dr. R. K. Hoover, formerly located at Haddam, Kan., has removed to Artesia, New Mexico.

Dr. W. G. Patten, formerly of Fort Scott, Kan., has moved to St. Louis, and has offices at 426 Metropolitan Bldg.

Dr. H. H. Miner, formerly of Macksville, Kan., is now located at Isabel.

Dr. A. J. Lewis, formerly located at Council Grove, has moved to Las Cruces, New Mexico.

Dr. George Bell, who spent some time in Hollywood, has returned to Mullinville to practice.

Dr. W. J. Stilson is now practicing in Coldwater. He was formerly located at Garden City.

Dr. Chas. O. Mills, formerly of Cimarron, has moved to Wichita and is located at 114½ South Lawrence, Lincoln Apartment.

Dr. G. W. Thume, formerly of Greeley, is now located at Waldron, Ark.

Dr. V. P. Booth, Dexter, has given up

his practice there and moved to California for his wife's health.

Dr. Ione Clayton of Arkansas City is visiting on the coast and also taking some post-graduate work.

Dr. J. W. Randall and family, of Marysville, are on a trip to Louisville, Ky. The doctor attended the Alumni Clinic week and the annual banquet on June 3rd.

Dr. Earle G. Brown, formerly health officer of Topeka, has assumed the duties of Secretary of the State Board of Health, to which office he was elected by the Board some time ago.

Dr. I. O. Church, who has been the Geary county health officer for some years, has been appointed health officer for Topeka to succeed Dr. Earle G. Brown.

R

BOOKS

New and Nonofficial Remedies, 1925, containing descriptions of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on Jan. 1, 1925. Cloth. Price, postpaid, \$1.50. Pp. 461+XL. Chicago: American Medical Association, 1925.

New and Nonofficial Remedies is the publication of the Council on Pharmacy and Chemistry through which this body annually provides the American medical profession with disinterested critical information about the proprietary medicines which are offered to the profession and which the Council deems worthy of recognition. The book also contains descriptions of non-proprietary medicines which the Council considers worthy of consideration.

In addition to a statement of the actions, uses and dosage of each product, many of these are arranged in classes and these classes are introduced by a general discussion of the group; thus the silver preparations, the iodine preparations, the arsenic preparations and the biologic products are preceded by a thoroughly up-to-date discussion of the group.

A glance at the preface shows that, in addition to the description of the new drugs which were accepted during the past year, the book has been extensively revised; many of the preparations listed in the previous edition have been omitted and the statements of the properties of others have been revised to bring the descriptions in accord with present day knowledge. Of particular interest is the revision of the general articles; thus the article on endocrine products has been entirely rewritten to bring this chapter in accord with the series of articles on glandular therapy which were published in 1924 under the auspices of the

Council. A general article on medicinal dyes has been added.

A section of the book (brought up-to-date each year) gives references to proprietary articles not accepted for New and Non-official Remedies. This list, in conjunction with the book proper, constitutes a cumulative index of proprietary medicines which physicians may consult when some proprietary product is brought to their attention.

Physicians cannot dispense with the newer remedies that are being brought out, yet they can neither judge them on the basis of the manufacturers' claims nor have they the opportunity or time to determine their merits. For this reason every physician should possess a copy of the annual volume of New and Nonofficial Remedies which the Council on Pharmacy and Chemistry puts at his disposal.

—R—

Tetanus Not Hopeless

While prevention is, beyond all question, better than cure, and has long been considered the only hope in cases of tetanus, a change is coming over the medical mind in respect to the value of antitoxin after the symptoms of tetanus have made their appearance. No longer regarded as useless, the urge is to make the dose adequate, 10,000 to 20,000 units at least, and in the vein or the spinal cord. Some striking cures have been reported from these large doses, followed up by smaller daily hypodermic injections to maintain the antitoxic effect.

Tetanus Antitoxin, P. D. & Co., is recognized everywhere as a standard product, and is available in doses ranging from 1,500 units (for prophylaxis) to 10,000.

Literature on Tetanus Antitoxin and on Chloretone (chlorbutnol), a chemical compound that is given in large doses per rectum to control the muscular spasms of tetanus while the Antitoxin is given for its specific effect, is offered by Parke, Davis & Co., whose advertisement appears elsewhere in this issue.

—R—

In the study made by Norman Tobias, St. Louis (*Journal A.M.A.*, May 23, 1925), comprising twenty-five persons in four generations, at least twelve positive cases of dystrophy of the nails have been determined. The disease has appeared in each generation, the defect having been handed down from parent to child through direct transmission by the mechanism of simplex inheritance, the offspring receiving a single or simplex dose of positive determiners

from the affected parent. In spite of the small size of the families in the second and fourth generations, the defect definitely appears to be a mendelian dominant or positive characteristic and is inherited by the affected individual as a new trait.

—R—

One of the patients whose case is reviewed by E. T. Gatewood, Richmond, Va. (*Journal A.M.A.*, May 16, 1925), was evidently suffering from a mild progressive toxic encephalitis secondary to the suppurative ethmoiditis, probably by direct continuity. The second case suggests a violent toxic absorption. Gatewood says that cases stimulating this picture frequently lead to brain operations with disastrous results. Patients manifesting such symptoms should emphasize the importance of a careful rhinologic examination. As the symptoms are toxic in nature, the improvement may be sudden or gradual after the eradication of the septic focus.

—R—

The sugar threshold in 100 cases of diabetes was determined by Joseph H. Roe and Oliver J. Irish, Washington, D. C. (*Journal A.M.A.*, May 9, 1925), and showed beginning sugar excretion levels ranging from 80 to 310 mg. of blood sugar. It is concluded by the authors that coexistence of nephritis with diabetes is apparently the cause of the very high sugar thresholds found. These facts are taken to show the importance of blood sugar findings and the insufficiency of urinary sugar examinations in diabetes.

—R—

F. I. O'Neill, W. H. Manwaring and H. Bing Moy, Stanford University, California (*Journal A.M.A.*, April 11, 1925), found that glycogen disappears almost quantitatively from the canine liver during the first fifteen minutes of anaphylactic shock. No conclusion is as yet drawn as to the mechanism of this hepatic glycogen disappearance, nor as to its clinical significance. These observations are in line, however, with the initial hyperglycemia in guinea-pig anaphylaxis, recently reported by Zunz and La Barre.

—R—

FOR SALE—Unopposed practice in Northeast Kansas R. R. town of 500. Good reason for selling. For price of a seven room residence and small amount of drugs. Address O. O., Care Journal.

FOR SALE—Good practice in Southern Kansas town of 800 population. Good territory and little competition. Large payroll. Will sell office equipment. Write C. H. D., Care Journal.

THE JOURNAL

of the

Kansas Medical Society

Vol. XXV.

TOPEKA, KANSAS, JULY, 1925

No. 7

The Present Status of Medical Education

H. J. DUVALL, M.D., Hutchinson

Read at Annual Meeting of the Kansas Medical Society, Topeka, May 5-7, 1925.

The requirements for securing the degree of Doctor of Medicine are too high. The intellectual or so-called leaders in the profession have led us up into the heights of knowledge so high that none but the ablest financially can make the climb. Thus, automatically cutting out the average young man from securing a medical education in the regular schools. Creating a shortage of physicians in the rural regions and in the smaller towns. This shortage is getting to be so marked as to create considerable comment in the national publications and even in the columns of the *Journal of the A. M. A.* No young man is going to spend from eight to twelve thousand dollars and seven years' time in securing the present day medical degree, and then go out in a rural community and practice medicine.

In fact, I have a son in medical college at the present time and this cost of securing a degree is very forcibly impressed on my mind and pocketbook. I advised him that if he could make a good connection in the city to stay there and not come back to the old home town to practice with me.

These high requirements also work to fill the ranks of the irregular schools or the irregular cults. A bright young man of limited means wanting to enter medicine comes to you to find out the requirements. He finds these so high that he gives it up. But many of them sooner or later decide that since they can't enter the ranks of the regular men, and they still want to be physicians, enter an Osteopath or Chiropractor school. Many of these young men are well meaning and would make excellent physicians if they were able to finish the course, but are debarred by the time and money requirements that we now are demanding.

Whether we know it or not, we have attempted to create auxiliary practitioners. In the nursing course we teach the nurses more things than they need in the prac-

tice of their work. We teach them obstetrics, materia medica, therapeutics and many things they do not properly need. And, gentlemen, I want to tell you that you will find many of our nurses prescribing and treating patients. In our city we have one school nurse, another working for some National Child Welfare association and two city nurses. I find that many families call in one of these nurses instead of a physician in many cases of illness especially in women and children. The six year course as now required with its loss of time and expense is filling the ranks at the top with Jews, and at the bottom with the Osteopath, Chiropractor, and such ilk.

What I mean by the Jews entering the profession in an abnormal per cent is well illustrated by a statement one of our Jew clothing merchants made about himself. This man is not an orthodox Jew and has been a thorn in the clothing business in our town. He got into financial difficulties a year or so ago and was about to go to the wall. The other Jews said: "Jessie is hard competition, but he's a Jew, lets put in \$500.00 a piece, and help him across." This was done and he is still in the clothing business. Whenever in a poor Jewish family, a boy shows talent for medicine all the uncles, aunts and cousins, as well as brothers and sisters, pool resources and put the bright lad through school. That is one of the reasons why the profession in New York City is largely filled with men of Jewish origin. In Chicago nearly a majority. And St. Louis is rapidly becoming Jewish in medicine.

The Anglo Saxon family won't pool resources, therefore the young fellow of that blood and type lacks the resources that the Jewish ones do. As an illustration of what I mean: several years ago I delivered a boy, the first born to that family on my birthday. I happened to speak of it and the father and mother very promptly named the boy after me. This lad is now in high school and last fall came to me for advice in regard to what course to take because he wants to study medicine. He is

a bright forceful youngster, a leader in his school activities, but his father is a motor man on a street railroad company which is now in receivership. What show has the boy to spend seven years in school and six to ten thousand dollars in money to earn the Doctors degree in Medicine. It can't be done.

Dr. Colvin writing for the Journal of the A. M. A. stated that a bright young man can work his way through medical school. To those conversant with the time used per day in doing the school work in medicine this statement is absurd. No young man can carry full course and do any outside work whatever. The course is so crammed with a multitude of connected and disconnected facts that the schools are trying to teach students, in order to fill up the six year period, that no student has any time for outside work. I had a young man, a graduate of a Chicago school join me about five years ago. He came out quite a finished laboratory man, doing all of the usual laboratory tests, but I noticed after about a year of it that he was sending all of his work over to the Dupray Laboratory to a man that does professional laboratory work. When I asked him about it he said his equipment was short. Took too much money to fix it up and too much time. And in addition the expert's reports were dependable.

The domain of medicine is so extensive and the mass of related and unrelated facts are so enormous that one man can not encompass the whole thing. The best that can be done is to ground the student in the fundamentals, the essential things, teaching him where to go to solve his problems, then letting him send his particular problem to that place; i. e., the exceptionally well manned laboratory or the surgeon or the brain man or the psychiatrist. In the colleges they do not use the encyclopedia as a text book in English, but do use it as a reference book. In other words the schools are trying to teach, in order to fill out the six year course, an amazing mass of facts, are trying to make specialists out of the neophyte. Cut this out, teach fundamentals, shorten the course. Let each man specialize when he finds out what he wants to specialize in, and his experience in general medicine will make him a better specialist. Instead of teaching all students to be skilled laboratory men I think that the fundamentals of bio-chemistry, physiology and pathology should be taught.

Leaving the postgraduate school for the laboratory man to finish in.

In my humble opinion four years' work in medical school after completing a standard high school course should make a good Doctor. In fact, one-half of the men before me, I venture to say, are three year men and you are pretty good doctors too, aren't you now? The three year colleges in the past turned out men in this state such as Dr. Klippel of Hutchinson, Ax-tell of Newton, Fabrique of Wichita, Reynolds of Horton and a host of other men. No finer class of men could be asked for. If the colleges can't make a good doctor in four years from high school they are not doing their duty, and are wasting the people's money.

Destructive criticism is easy and now I want to offer a constructive thought. I would suggest that the colleges in conformity with the continental custom of granting degrees that has been adopted in this country, give a four year course from high school in medicine and grant the degree of Bachelor in Medicine. Require five hours in inorganic chemistry in the high school. Teach organic chemistry, biochemistry, physiology, pathology and anatomy during the first two years, finish the clinical studies in the last two years. Amend the statutes of the different states changing the requirements of the statutes demanding the degree of Doctor in Medicine to one of Bachelor in Medicine. Then after the man takes another year following graduation grant him his Master's Degree. When he takes his sixth year give him the Degree of Doctor in Medicine. I think all of the state universities should set up this system, leaving the heavily endowed semi-private schools to proceed as they see fit, or as they are doing now. This will decrease the number of men going into irregular medicine and increase the supply of rural physicians.

For an illustration of what too high requirements can do and the way of evading them. I am reliably informed that a past president of this august body moved to California several years ago and attempted to register in that state. This was during the time that the regular physicians had closed shop laws in that state and he was unable to qualify. He was in earnest about getting into practice, so took six months course in an osteopathic school and registered as an osteopath and very blithely resumed the practice of medicine. The law makers in California evidently took away

from the regular physicians the autocratic power they then enjoyed. That is a prerogative they can take from us at any time the people decide to do so, providing there is enough of a demand.

To summarize: too great a mass of medical knowledge is in existence today for one man to use himself. In trying to impart this knowledge the course is spread over six years and the man over-educated.

Too many American youths enter the medical service of the community by the "irregular" doors.

Americans will not be satisfied with the European medical service, viz: only the higher class having the family physicians, and the middle and lower classes getting service at the great hospitals. The American demands the individual family physician service. We should give it to them and the way to do this universally will be to restore our four-year course for the average every day physician and let the out-standing man take 10 years if he wants to.

—R—

Correct Dose Measurements of Radiation to Malignancies

OPIE W. SWOPE, M.D., Wichita

Read at the Annual Meeting of the Kansas Medical Society at Topeka, May 6-7, 1925.

In coming before you with this subject I hope I am not too presumptuous in the fact that while x-ray is an old subject, and many of the minor details are well known to the medical profession in general, many are yet, however, in doubt as to the methods of application of x-ray as a therapeutic agent to many and varied pathological lesions, especially superficial and deep-seated malignancies.

There is abundant evidence at hand, clinically and experimentally, that a definite amount of radiation exerts a definite influence, biological as well as pathological upon cancer cells. Experiments reported two years ago at the American Association for Cancer Research upon the influence of tumor growth in animals by means of radiated tumor emulsion proved that an emulsion of Flexner-Jobling Rat Tumor, which was radiated with one or two skin erythema doses, failed to show upon re-inoculation, while in the control animals which were inoculated with the same emulsion unirradiated, the tumor grew in thirty-four out of forty-three inoculations.

For the physician of the medical profession to obtain a fair knowledge and become successful as a doctor, it is first es-

sential that he be well endowed with knowledge as to diagnosis and therapy of the many ailments to which the human race is heir.

It is also especially befitting and necessary that he, though he be not a specialist, familiarize himself with the various and numerous special lines of medicine and at least where his broad knowledge fails to reveal the proper result and correct diagnosis to be sufficiently posted that he knows with what specialist to consult.

Radiation therapy and radiation diagnosis, likewise, have become one of the most valuable assets, not only to the general practitioner but to each and every specialist in most every line in making his diagnosis and rendering in many cases the proper therapeutic measures.

The rapid advancement in the treatment of malignancies in the last four years by radiation is very well known, and it is also well known that within that four years surgery does not hold the most important and highest esteem in effecting relief and cures in malignancies, although in the past it has held sway over all other measures. The present indications are that surgery in malignancies is being displaced by more essential methods.

Radiologists and surgeons have now become trained to think with the pathologist and internist of the necessity of co-operation of all of the forces in the treatment of these lesions, and by so doing the progress of malignant therapy by radiation plus surgery, radium and all the other valuable forces has so rapidly advanced within the past four years that a discussion of its advancement is not necessary at this time.

The principal point I wish to bring out is the method by which the x-ray dosage to a certain part is computed, by which the best biological result in the organism is obtained.

We shall, therefore, consider more in detail short wave therapy or so-called deep roentgentherapy and our latitude of control over its application, either alone or in combination with radium to a given depth and to a given part, and also of the longer waves of x-ray, or the soft rays as mostly used in superficial therapy.

In so doing, the factors necessary to produce the desired dose of radiation must be considered and they are, first, sufficient voltage at the terminals of an x-ray tube to produce very short wave lengths, or as it were, hard rays, as they are the rays which reach deep into the tissue and scatter

secondary radiation where they stop and between the portals of entry.

Since radio sensitiveness is influenced by the vascularity of the tissue under treatment and further by the character of the type of cell composition of the tumor under radiation, and the normal cell behavior is according to or dependent upon the functional, structural and chemical characteristics, one can readily comprehend why such tissue as cartilaginous, testicular, tonsillar, thyroid and endothelial, etc., require a wide field of variation of dosage.

The more intense the voltage produced by the x-ray machine, the greater the depth penetration between the point of entrance of the beam of x-ray and the point of exit, and since it is between these points that the portion of the body receives the secondary radiation—and it is the secondary rays that produce the biological reaction—we are able to calculate a lethal dose by present methods. Thus you see many factors enter into the calculation of the correct dose to be given.

The very hard direct rays which go on through the body are inert as they leave no secondary rays in the tissue, therefore, do no harm nor good.

A great many of these factors can be calculated by the rules of the inverse square law but there are certain factors which cannot be computed by the inverse square law regardless of the flexibility of technique employed.

We have stated the more intense the voltage applied to the tube the greater the depth of penetration. We then must consider the distance, the voltage applied, the milliamperes or quantity used, the filters interposed between tube and patient and the time required to deliver a certain dose at a calculated depth. Then we must know with all of these factors and their various flexibilities the time that would be required to produce an erythema dose (skin unit dose) to the skin or as it were a tanning of the skin. With the knowledge of how to produce this effect in any given case, with the inverse square law it is fairly easy to calculate the amount of radiation required to produce this skin effect. Regardless of distance, voltage, milliamperes or time, these can all be calculated.

For a time it was thought the percentage of skin dose to a certain depth might also be calculated in this manner, but we have found by experience with an accurate method of measurement quite the contrary.

Having in mind all of these factors we must calculate the variation as applicable to various wave lengths into radio-active substance sufficient to produce at a certain depth or source sufficient direct radiation within or about the part from which emanates the many thousand secondary rays to get the therapeutic result. This can now be done in a manner similar to the administration of a drug. We do not administer the highest possible dose the system can stand of an anti-toxin when immunization is the result desired; if we have a diphtheritic case of severe type the anti-toxin is administered for its highest potency. I dare say many of you have and do today administer salvarsan and its derivatives according to your analysis of the disease being treated. I am sure you do not always administer the big knock-out or .9 gram dose in all cases.

Thus arsenical preparations are administered to allied conditions of syphilis as per our best judgment; so it is with radiation.

The past has proved many valuable assets for our future radiation therapy according to the type and cell characteristic of the condition being treated. In order to do this accurately, we must know our x-ray machine's eccentricities and the actual x-ray output.

We now revert to the previously stated factors necessary for actual dose calculations which are:

1. Voltage.
2. Tube distance.
3. Milliamperes or quantity.
4. Filters.
5. Size of portal of entrance.

Voltage changes are very common according to atmospheric pressure, altitude, city current fluctuations, etc. Therefore, with our kilovoltage yesterday we delivered a certain percentage of depth dose; today it may be from two to five per cent different, greater or less.

The distance factor we can easily keep constant and if we do not a slight difference in distance makes a very great difference in the percentage of skin dose being sought. An example of this—at 60 centimeters distance to produce a certain dose would require a very great difference in time should we treat at a hundred centimeters distance. The inverse square law is here applicable.

Milliamperes, or quantity going through tube, likewise means a very great difference in time if they are changed: e. g., if we

have a specified time to produce a dose all other factors being constant, with five milliamperes we would have to double the time to reach this required dose should we use two and one-half milliamperes.

Filters are the most important of all things to bear in mind for it is with this part of the procedure that we entirely control the possibilities of an x-ray burn. The filter mostly used, especially in America, for deep therapy now is copper. If we use a half millimeter copper we get a larger bundle of rays to the skin in a shorter time than we do if we use one millimeter copper. With one-fourth millimeter of copper with the same voltage and other factors remaining constant, we would produce a bad skin burn before a ten centimeter sufficient depth dose had been reached; thus the heavier the filter the greater the percentage that reaches the desired depth until the most effective wave length is reached.

With our apparatus we find by actual experimental measurements the highest efficiency of wave length is obtained with one-half millimeter of copper interposed. If, therefore, we use three-fourths or one millimeter of copper as has been the custom in the past, and is yet used by many, we only increase the time required to give the necessary skin unit dose. If we desire to treat a lesion which is less than ten centimeters depth, it is necessary only to use one-fourth millimeter copper and the effective dose can be administered in a shorter time.

The portal of entrance also has a very great significance. We have spoken of secondary radiation as being the principle which produces the biological reaction. Then if we use a small portal of entry we do not get the same amount of secondary radiation as we get in using a larger portal of entry. In treating an area where metastasis is suspected we would use a large portal of entry in order to obtain a large homogenous radiation.

We will now refer to the essential principle of radium application and why in a great many cases the combination of x-ray, radium and surgery should be instituted.

We have spoken of depth dose. We usually calculate the pelvis to be twenty centimeters antero-posterior to postero-anterior, and we are treating a cervical carcinoma; now, what part does each play in effecting a cure of this patient?

We will assume that this is a very early carcinoma, in fact, so early that we are not sure it is a carcinoma; however, we must

consider it bad practice to do biopsy to find out. We would rationally co-operate and treat the patient with intensive high voltage, correctly measured dose x-radiation through a large portal of entry in order to get a homogenous radiation; and to be doubly sure if at all consistent, insert radium directly into the lesion and not use such heavy doses as have been the custom in the past. You ask, why? For the simple reason that in producing this x-ray dose deep into the tissue we have utilized already the very hard and most essential rays.

Radium we know dissipates itself very rapidly in contact with tissue but there are essential rays with radium; in fact, they are not rays at all but particles, or so-called beta and alpha rays, all very soft rays which we have been unable to utilize with x-rays and it is very essential that we have some of these rays. Thus, we use radium direct into the lesion where it is possible to do so. Especially is this method desired in uterine, rectal and gastric carcinoma.

After this procedure, if this be an operable case, two or three weeks gives the surgeon a very much greater opportunity to operate without having a recurrence. Whereas, had surgery been instituted primarily the possibilities for recurrence are well known. Had radium therapy alone been instituted the cervical lesion would improve but a marked stimulation of the distal lymphatic involvement would be brought about and a recurrence is sure. With x-rays and radium applied the cell multiplicity is at least stopped and surgical intervention is made quite safe.

If this be a case of advanced carcinoma or even readily diagnosable it is then inoperable and radiation by x-ray and radium should be instituted primarily, and even in this case we may make of it an operable case.

So after all by working hand in hand we are nearing the climax where each and every available method considered of scientific good and by close co-operation of the surgeon, pathologist, radiologist and every other specialist, we will no doubt over a period of five or six years marvel at the cures of superficial and deep seated malignancies.

I have tried to interpret this procedure of radiation to you in a simple manner that you may readily understand the importance of roentgenology and its application being conducted as scientifically with all of the painstaking efforts and care and

responsibility, as you as specialists or general practitioners assume when you undertake the arduous duty of delivering the best there is in you to your patient, and when the best has been done and your conscience clear and your patient passes on as many of them do through the roentgen laboratory, you will not lose sleep over worry.

By a few lantern slides I shall attempt to demonstrate how dose accuracy can be attained by the use of the intoquantimeter. This instrument is standardized by electroscopic measurements. It has an ionization chamber consisting of sulphur or amber at each end of the cable. One end of the ionization chamber is attached to the meter and the other end is inserted into a paraffin block which has the same absorbing power of radiation as does the body. If we desire to use on the patient, the rectum, vagina or other oroficial cavity may be used.

The paraffin block has accurately measured distances and variations in depth do not change, therefore in seeking the voltage and x-ray output each day before starting a series of treatments one can know accurately what he is doing and detect errors that might be in the neglect to insert a filter or something that might terminate in a bad accident.

When the ratio of the surface dose and depth dose is taken, we therefore know how long a time it will require with chosen factors to produce the desired radiation at a given depth.

We will assume that half the time is consumed in the discharge of the intoquantimeter at the surface as is required at ten centimeters depth; we see immediately that fifty per cent of the surface dose is reaching the lesion which we estimate to be ten centimeters deep. If this be a twenty centimeter patient, we can also determine readily the quantity passing through to the opposite side. Knowing our limit surface dose when we treat in an opposite direction we know where to stop.

If the patient be unusually large we enter through the perineum and sides until a known quantity is delivered within and about the lesion sufficient to destroy or probably increase the lymphocytic element to a higher resistance, accordingly, as the case may be.

Referring to what is meant by an erythema dose which has been spoken of. It merely means the quantity of x-ray absorption per cubic centimeter square of tissue

to produce a maximum saturation without injury to the healthy tissue. Then if 100 electrostatic units at the surface are sufficient to produce a mild erythema and a mild erythema is a sufficient quantity of radiation to produce destruction to cells forming the lesion, we can produce a similar effect at any given point in the body.

Kidney Function

H. E. MCCARTHY, M.D., Kansas City, Kan.
Read at the Annual Meeting of the Kansas Medical Society at Topeka, May 6-7, 1925.

The author in his handling of the subject, which he considers opportune because so little used, although of extreme value both in diagnosis and especially in prognosis, realizes that he cannot take up the individual technique of each test nor its applications in different medical as well as surgical aspects. The scope of this paper will apply to urologic conditions in particular and to the mention of other conditions in which the tests are of value.

Preoperative information on kidney function by the various pigment tests and by blood chemistry, should be secured in all surgical conditions of the prostate, bladder, kidney, and even long standing strictures with more or less complete retention.

Normally both kidneys function identically, therefore a discrepancy in function indicates the probability of a disease of that kidney. In testing the function it depends on the type of test made, also the pathology expected, and the author believes that in no surgical case should dependence be placed on any one test to the exclusion of others. In the prostatic conditions one should perform the indigocarmine test for time relationship of kidney function and then the phthalein test. If the phthalein test gives a test sufficient it may be recognized, but in our experience there are a number of cases giving a low phthalein output that are good operative risks in accordance with their blood chemistry, therefore we favor doing one of the blood chemistry tests in addition.

In pathology in the kidney, such as stone, pyonephrosis, hydronephrosis, polycystic kidney, etc., it is necessary to separate the two urines and obtain from each side for examination. The use of the ureteral catheter demands accuracy and care also; it is well to obtain, at the same time, a collection of urine for the bacteriological and chemical tests, then removing the cystoscope and performing the pigment test desired. In making these tests the amount

of urine obtained is of no particular diagnostic value. The catheter should be carefully placed in the pelvis with as little trauma as possible as an anuria is liable to result with careless handling.

Robt. V. Day, in the *Journal of Urology*, January, 1925, suggests for the male a method of collecting bladder leakage of phthalein during the process of ureteral catheterization for kidney studies. The author has employed this method for some time but to Dr. Day, who has written, shall go the credit. We shall quote: "Remove the telescope leaving the sheath and catheters in, then insert a silk web catheter No. 10 through the sheath after cutting off the funnel end. After the third catheter has been passed thread the three through the sheath and remove the sheath. In this way we are able to estimate the leakage simultaneous with the excretion of phthalein from two sides. In the female this is not necessary as the catheter can be readily passed alongside the two ureteral catheters."

In testing renal function in tuberculosis of the kidney great care should be used. It is essential not to exhaust the patient by too long instrumentation nor cause injury by allowing the catheter to remain, in which event we may cause a hyperemia and edematous swelling of the ureteral mucosa with more injury to the kidney and possibly sloughing of the ureteral epithelium and subsequent infection. Methods of examination should be performed which do not take more than three-quarters of an hour. Such methods include cryoscopy and comparative urea determination.

In cryoscopy, a kidney that does not present a concentration of less than one degree C. is usually diseased, those presenting a concentration below two degrees C. are usually functionally efficient. Cryoscopy of the blood also furnishes approximate data as to renal function. The freezing point of normal blood is 0.55 degrees C. to 0.57 degrees C. or lower.

We will now mention in slight detail the most used tests; Phthalein test—The test is made by the intramuscular injection of 1 c.c. of the dye, and colorimeter comparison made of the output in the first and second hour. The normal output is taken as sixty to eighty-five per cent; although authors vary from fifty to ninety-five per cent. The repeating of the test at varying intervals gives a relative idea of improvement.

Urea concentration test was first intro-

duced by McLean and DeWesselow and they consider that in the majority of cases, it gives more reliable information than any other. McLean considers that it will detect a lesion of much slighter degree than can be done by estimating the blood urea. The rationale of the test is that after the injection of urea the blood urea rises, and if the kidneys are healthy, a high concentration of the urine excreted in the first two hours afterwards results. If, after the injection of fifteen to twenty grammes of urea, the urine of the second hour gives a concentration of over two per cent, the kidneys are held to be fairly efficient and the higher the concentration the more effective the kidney function. Urea sometimes causes diuresis in the first or second hours and thus a vitiation of the test, and under these circumstances the period of observation is lengthened to three hours. If, however, the urea is given in the morning when no fluid has been taken it is seldom that a diuresis occurs. It is always well to do a blood urea before one tries the urea concentration because in nephritis one may find two patients with a urea concentration of two per cent and one will show a blood urea of 200 mg. and the other 30 mg. per 100 c.c. giving a head in one case of 170 mg.

Blood Urea—Although no one believes that it is the retention of urea which is responsible for the toxic symptoms in nephritis, there is no doubt that in diseases accompanied by impairment of the renal function the urea content of the blood has a tendency to rise apparently due to non excretion, a fact stated by Christinson in 1829 and looked upon as evidence of renal disease. This is an important deciding factor in the excretion of urea, the amount depending on the ingestion of protein. The urea content of the blood in health generally is considered to lie between 20 and 40 mgs. per 100 c.c., some writers state from 15 to 50 mgs. as normal.

Our Dr. Ralph H. Major of K. U., in *Arch. Int. Med.* of January, 1924, gives his creatinin test for renal function in which he points out, that, while normal kidneys respond promptly to an excess of creatinin in the circulation by a greatly increased urinary output of creatinin, the kidneys in a chronic nephritis show no such marked output and at times show even a decrease. In his study the patient's urine is collected for a one hour period and then 0.5 gms. of creatinin is given intravenously. Subsequent collections are made at one and

two hours respectively and the total secretion of creatinin in each of these specimens is compared with that before the injection. The author has made quite an exhaustive study as his complete article will show. His estimations are made by the Folin method. The normal kidney was found to respond to the intravenous injection of creatinin by an increased output averaging three times that excreted during the same period of time. The creatinin test has proved to be a good kidney function index in disease.

Edwin Becher in November, 1924, gives a xanthoprotein reaction which is more to be commented on for its simplicity than accuracy.

The determination of the freezing point or cryoscopy is valuable. Differences between two kidneys indicate pathological changes; however, the kidney presenting the lower concentration is not always the diseased one as the increased fluid secretion may obscure the true conditions.

The indigocarmin test is the most simple and reliable dye test. Delayed excretion of the dye indicates functional disturbance and disease; a diseased kidney if it is not functionally disturbed is capable of excreting the indigo more or less normally. Cromo cystoscopy is of value in recognizing the ureter-ostia of the bladder and for the determination for the renal function in general.

The phthalein test is a test for the total function but we consider that by itself it is not reliable.

The presence of calculi disturbs renal function except in cases of small calculi in the pelvis, not obstructing. These can be suspected by the findings of blood and pus and confirmed by roentgenographic examination.

The degree of urinary retention in the pelvis of the kidney, or hydro-nephrosis may be determined by estimation of residual urine in the pelvis as demonstrated by catheterization and pyelography. The functional diagnosis is important in determining the operative indications.

The diagnosis of renal tumor must be based on a combination of subjective and objective symptoms, pain in kidney, palpation finding, hematuria and functional disturbance; this latter depends less upon the size of the tumor than upon its location (that is if obstructive) and upon toxic influences. Renal tumors must be differentiated from hemorrhages affecting other organs. Normal bleeding kidneys are dis-

tinguished by their normal function. Cystic renal tumors are rarely unilateral. Bilateral cystic tumors of the kidneys are generally wasted, excrete indigo carmin slowly and may be hemorrhagic. The functional tests will differentiate between renal tumors and growths of other abdominal organs.

Pyelitis does not affect the functional findings. Pyelonephritis results in a marked functional derangement.

The kidney functional test and blood chemistry are probably our most valuable agents today for not only aid in diagnosis but also for prognosis and the progress.

In gout which is characterized by its high uric acid content 4 to 10 mg.

In Diabetes with its carbondioxide and blood sugar determination.

In infantile tetany which shows from 3.5 to 7.0 mg. of calcium instead of the normal 9 to 11 mg. per 100 c.c.

In rickets the inorganic phosphorus of the serum is reduced to 3.7 to 2.0 mg. instead of the 5.0 mg. per 100 c.c.

With just mention of these to call to mind the numerous possibilities of laboratory usage, in our diagnosis, treatment and prognosis, we wish to stress the fact that kidney function and blood chemistry are not for the urologist and laboratory technician alone, but if looked up and their value to you understood a great amount of good will result to your patient as well as to yourself. Particularly in the aged, it matters not the type of operation, should the kidney function of the individual be understood. I have tried to make this paper as practical as possible and wish to apologize if it appears too much in terms of urology. It does belong there but not exclusively and I, as the rest of you, only speak in the tongue with which I am most familiar.

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The School Child and Heart Strain

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Child Health Adviser, Kansas State Tuberculosis Association.

Read before the Kansas State Medical Women's Association, Topeka, May 7, 1925.

Mothers, teachers, nurses and all those having to do with the training of children are now concerned earnestly with the problems of bringing them up to a healthy childhood. Their concern is much greater than their knowledge in most cases. They need and seek the help of a professional medical adviser. This service the Kansas State Tuberculosis Association has been offering through its Child Health Adviser throughout the state of Kansas for two years past.

It was our intention to give special attention to problems of nutrition on the supposition that the malnourished child is most likely to be the tuberculous child but we soon found that malnutrition (or underweight which is the basis of the usual malnutrition diagnosis) does not cover the entire field of ill health in childhood.

Any child whose health was a matter of concern to teacher or parent might be brought in for consultation for examination and for suggestions as to the improvement of the situation. To go back of the symptoms described, to try to discover the contributing factors, to bring parents to recognize the true condition and to persuade them to attempt to remove the cause of the child's ill health by changes in diet or home habits and to seek suitable medical treatment—these were the things we wished to accomplish.

The cardiac conditions encountered were a source of much perplexity to the examiner, but the conviction grows that the heart troubles of children should have more consideration than they now receive from the home, the school or the family doctor.

A heart murmur congenital or acquired, may not be discovered by the doctor until he makes an examination during illness, then it is announced to the family and they have the shadow of death over them in the

fear of the mysterious heart leakage which they think that murmur signifies.

A high school girl asked, piteously: "I heard the doctor tell my mother one time I had a mitral. What is a mitral and what will it do to me?"

We probably have cardiacs in Kansas schools in about the proportion found in New York City, where a cardiac survey of school children was carried on through four years. Fourteen children to the thousand had some heart murmur but only half of these had organic defect and hardly two of the fourteen had any limitation of activity.

When cardiac trouble is recognized in a child the doctor is consulted if he presents any sort of symptoms; and the care given is mostly satisfactory, though the tendency is to restrict needlessly, and to develop a habit of invalidism in a child who has, at any time, had any heart murmur. Because a heart is weak after "flu" or diphtheria, the doctor has not been careful to impress the family with the probability of full recovery after a few weeks rest has allowed the heart to regain its tone, and there is needless anxiety over the patient for months after the heart has fully recovered.

In our work in the clinic—as we called these health conferences—the many "queer acting" hearts we found gave rise to some question as to our responsibility. Almost daily we found one or more children with heart irregular or rapid above any normal rate. Any hint of heart trouble so alarmed the family, the doctor was so inclined to take as a matter of course any heart without a murmur, it was a question if these irregular or rapid hearts should be considered as defective. What was likely to be the future behavior of these hearts under the strain of school life?

In making a study of some underweight school children with the nurse in Atchison, we found 52 of the 139 children examined to have some cardiac peculiarity. Of the eight children with murmurs only one child was inconvenienced and she should have been in bed. In the other seven with murmurs no limitation of activity had been noted. A few of the hearts showed the irregular beat but most of these 52 cardiacs showed only the rapid pulse.

The irregularity gave the child no inconvenience; he never seemed conscious of it. It could best be detected by listening to the heart and noting the beat in ten second counts through the full minute. The irregularity becomes more marked with deep breathing, less marked with exercise.

Osborne says that a recent study of children's pulse rhythm shows that not 40 per cent of children's hearts are regular and 60 per cent vary from mild to extreme irregularity. Any child even in normal health may, when asleep, show notable pulse irregularity.

Sir James McKenzie studied one thousand patients with heart irregularity, following the cases for many years and by careful observation he defined two classes, the youthful type and the adult type of irregularity. The "sinus arrhythmia" of the youthful heart "shows that the cardiac muscle is fresh, healthy and responsive to the stimulation produced by deep breathing."

After a febrile attack, when the heart rate drops and the irregularity appears, he considers it a sign that the heart muscle has escaped damage. He says he has "watched many such cases through many years. The young men led active, even athletic lives, the young women married and bore repeated pregnancies without any failure of heart function."

So we are justified in concluding that a child with no other trouble than a heart irregularity may safely be passed over as needing no special attention, and probably it is unwise to alarm the family by making mention of it as "skipped beats" cannot be explained to an anxious parent as a matter of small moment.

The overacting heart seems quite another matter. Granted that the child heart beats faster than the adult (Osborne says that for children under ten or twelve anything under 80 is unusual, anything up to 100 is normal) granted that the excitement of the examinations raises the heart rate somewhat; still we found so many children whose heart beat was 120 even up to 150 a minute that we wanted to know the reason for this.

Only two such children when asked as to heart symptoms gave any history of dyspnea, though one little chap sighed "Gee! I ain't got no wind at all anymore," but the "stitch in the side" was a fairly common complaint. Mothers had noted it as coming on after exertion but because it was felt under the left arm or over the spleen they did not consider it a heart pain and so were not anxious about it. The pains around the heart, complained of by some of the children more often seemed connected with digestive disturbances rather than exertion.

The child's "stitch in the side" Bishop

identifies with the "praecordial pain" noted by Sir James MacKenzie and described by Lewis as a feature of the "effort syndrome." MacKenzie says that in heart impairment dyspnea and pain are interchangeable symptoms; that sometimes activity is limited by the pain, sometimes by shortness of breath. That being true, the child's complaint of "stitch in the side" should never be considered unimportant.

These children with rapid hearts were likely to be found fatigued to the point where they did poorly in their school work: but thirty, forty or fifty extra beats per minute on the theory that each beat lifts the equivalent of three to five pounds a foot high, means the expenditure of a large amount of energy and might explain the fatigue, though the toxin from some infective focus circulating in the blood is a more generally accepted explanation.

So many of these children with rapid hearts were observed to have bad tonsils, and also had "growing pains," if not more marked rheumatic symptoms, that we wondered if the heart disturbance might not be a prechoreic symptom due to nerve irritation from the tonsil poison, and we noted the rapid heart as another evidence of the advisability of tonsil removal. I had the chance to see two such children again, a few weeks after their tonsils were out. A boy of 13 who had been brought to the clinic because of underweight and mental dullness was improved in health, in weight and in school work and his heart rate had dropped from 120 to 90. The little girl of five extremely underweight, who had been a nuisance in school because of her constant weeping was becoming plump, rosy and cheerful, and her heart rate was 100 instead of 140.

MacKenzie writes of the poisoned heart with rapid beat, and such heart rate is not now considered a purely nervous manifestation, but is due to loss of tone and contracting force in the heart.

Doctor Bishop, in his effort to make clear the modern conception of cardiac treatment, makes use of an expression "softening of the heart," which would be as alarming to the public as the much dreaded "heart leakage," if the term came into general use. A "functional softening" comes from poisons circulating in the blood which depress the tone of the heart muscle, as they may depress the tone of the trunk muscles so as to allow a slump in posture.

Also he describes the organic softening

following influenza or diphtheria when the heart muscle itself is the seat of some inflammation. This inflammation is likely to recover in time and the heart resume its tone, but poisons constantly absorbable into the blood stream keep the heart soft and flabby.

Lewis in his study of what he calls the "effort syndrome" in soldiers classifies the cases by cause into six groups.

1. The smallest group, with incipient heart disease.

2. Soldiers gassed.

3. Incipient tuberculosis, local pus infections and gastro intestinal troubles.

4. Delayed convalescence from acute infectious illness.

5. A large group played out by exposure, hard work, and disturbed sleep.

6. The largest group of all* who have constitutional weaknesses, nervous or physical or both; incomplete or imperfect development, as flat chest; infantilism; nervous taint, as epilepsy or insanity; those who as children were nervous or bed wetters, etc.

If these conditions leading up to the "effort syndrome" were found in young adults entering army life, it would seem wise to be on the lookout for them ten or fifteen years earlier in life and to study the effect of strain on the heart of the school child to judge how well he is able to meet it.

There are many hearts that might be classified as "Potential Cardiacs," in risk of damage by some constant or recurrent infection; as constant infections may be considered diseased tonsils or sinuses, running ears or abscessed teeth whose poisons are absorbable into the blood stream.

Doctor Bishop speaks of the softening of the heart by poisons absorbed from the intestine when putrefaction is present. We distinguish as does Hill in Practical Infant Feeding between putrefaction of proteins and fermentation of carbohydrates and observe that in children the carbohydrate digestion is more commonly at fault. Poorly cooked starch or a high sugar ration which ferments in the small intestine give a child most frequent difficulty.

Osborne says that "anything which tends to increase the acidity of the tissues and diminish the alkalinity of the blood seems to produce endocardial and myocardial irritation if not actual inflammation." He states this as an argument for the alkaline treatment of rheumatic fever and we may consider it as going to show why cardiac

children do better when candy is restricted—and also that an over amount of sugar, which is a common fault in children's diet may account for the rapid heart beat of some of them. This would be as true of excess proteins as meat and eggs which is a similarly irritating factor, but this faulty diet is not so prevalent among children as is the excess of carbohydrate.

Sutherland well describes the rapid heart of childhood in his consideration of nervous tachycardia or irritable heart which he says is not uncommon in young subjects quite apart from any cardiac disease.

The tachycardia is persistent, not occasional, and may last for months or years. The rate may be increased by the usual excitants, emotion, exercise, fever or the like, but it slows back to about 120. The recumbent position lowers it only a few beats, and may even increase it, but the rate drops to normal during sleep. The rhythm of the heart is not disturbed. This tachycardia occurs near puberty, especially in neurotics.

While he recognized the latent toxæmia noted by MacKenzie as a cause of this condition he finds children affected who have no discoverable focal infection and they improve on treatment directed toward the nervous system.

Bishop suggests that Graves Disease is not unknown even in childhood and the thyroid should be considered as a factor. But though we have districts in Kansas where goiter is noticeably prevalent I do not think I have noted a probable connection of the goiter with a rapid pulse in any case among children. In some of the cases we saw there was a history of some nervous factors—quarrelsome or poorly regulated home life, the strain of added effort, overwork or social strain beyond the school work.

I remember especially two little girl chums, each anxious to excel in aesthetic dancing much in demand for evening entertainments, underweight and with hearts running above 120. Late social hours, the last show at the movies, or the midnight concert over the radio are all causes for loss of sleep in school children.

As to the frequency of these rapid heart cases, an observation of MacKenzie's gives this hint. In speaking of the poisoned heart he says, "Sensations referred to the circulatory system, palpitation, breathlessness or exhaustion easily provoked, and increased rate, systolic murmur, and dilatation may appear in the heart. In analysis

of four hundred soldier cases, I found 90 per cent of the hearts were not organic; though increased rate and dilatation are present these signs are only part of a general condition."

So we are not far wrong, probably, in suspecting that our proportion of seven children per thousand with organic heart disease is only 10 per cent of the cardiac problem of our schools, and that we have about seventy children in a school system of one thousand pupils whose hearts will bear watching—and who should be tested for the heart's response to exercise.

It would be a good thing if school physicians and nurses, physical directors and teachers would follow Lewis' work on "The Soldier's Heart and the Effort Syndrome," and apply his teachings to their pupils in recognizing some "potential cardiacs," for the flabby heart muscle and enforced exertion, even in recreation, is a combination that holds possibilities of disaster.

The little child will govern his periods of play and pause and seldom is inconvenienced by the activity of his daily program especially if the afternoon nap or rest is insisted upon. A child may come to evening too tired to eat supper or to sleep well, if so he has played too hard and should have quieter amusements for some part of the day.

The school child is anxious to keep up with the "big boys" or girls, but left to his own devices he will rest long enough to catch his breath when his "wind gives out."

Supervised recreation, the substitution of calisthenics and group games for free play at recess has the supposed advantage of securing for every child a specified amount of exercise—a disadvantage unless the child is free to drop out of the game when he notes any discomfort.

The new planning of our schools on the "6-3-3" arrangement, six years in the grade or elementary school, three years in Junior High schools, three years in Senior High school, has advantages from the educational point of view, no doubt, or it would not be so generally adopted.

But in a small town school system, it puts the child of twelve or thirteen at seventh grade into the high school building and under the high school program of study and athletics.

The coach or physical director is young, enthusiastic and his program is popular. He has had his training under college conditions in a class of college students who are older, more nearly full grown physi-

cally and mentally, so he fails to consider that athletics should be modified for pupils in the early teens, because at this period of rapid development the heart is already on strain trying to adjust itself to meet the demands of the growing body.

Tait McKenzie of the University of Pennsylvania lists athletic and gymnastic games according to their demand on nerves, heart, lungs and muscle and finds that the ones most used in High School athletics, football, basket ball and track work, are the ones that make the most severe tests and the students, once in the game, must play it through, or win the penalty of the scorn of his school mates.

McKenzie says, "There is always danger of exhaustion and overstrain from excessive athletic competition, but early adolescence and middle life are the danger periods. The heart of the boy of fifteen is in no condition to stand extreme tests. About this time a lad's ambition is apt to outstrip his vitality."

Doctor Morse in Hygeia for May, 1924, says of "The Overstrained Child" much the same thing of school athletics but carries his warning beyond the activities of school life to the Boy Scouts or the summer camp, where all are out for the same hikes and stunts, and no physical examinations are made to determine relative ability; and it frequently takes children until Christmas time to recover from summer camp.

In a safe and suitable summer camp for boys and girls the rest periods should be as thoroughly planned and supervised as are the exercise stunts, and this is emphatically true where the camp is set up as a nutrition project for underweight children.

It is the custom in some of our rural schools to train intensively for a few weeks in the spring for a county or township track meet with running, jumping, and other such individual feats. One observant county nurse says she found children in school who had gone into the track meet in April who even the next fall had not recovered from it. They were dull in school, listless, tired out, with no pep, symptoms corresponding to those of "staleness" or chronic fatigue as described by Tait McKenzie.

Some modifications of athletics for girls is usually considered desirable, though we too often find coaches who scorn "girls' rules" for basket ball. The studies of Doctors Clelia Duer Mosher and Angenette Parry, quoted by Tait McKenzie show that

the physiologic limitation of girls is not as great as has been supposed. But Doctor Janet Lane-Claypon says of exercise for adolescent girls, "The onset of puberty is often a period when, without showing signs of actual disturbance, the tone of the body is not good. Many girls are anaemic and the muscles are flabby with a good deal of superfluous fat. This is not caused by diet but by a general state of the organism. Over-fatigue should be avoidable until the body has reached a more stable condition."

Standards of health inspection in force in one state allow no participation in competitive athletics and restrict physical education for pupils 10 per cent or more underweight; so in the early teens athletics should be guarded more according to age and weight-height ration than by reason of sex.

The clinic visited a town where attention was forced on high school athletics by the alarming collapse of one of the players at a basket ball tournament. The school nurse had the idea of "examining" the high school students but that was not practicable in one afternoon. She did call the seventh grade Junior high school boys from their gymnasium practice. They came by groups, sat resting five or ten minutes before the examiner reached them, yet their hearts were tumultuous, rapid, and evidently under strain. A group of boys from the upper classes of Senior high school, four or five years older showed only two or three with rapid hearts.

Terman says "The child's heart compared with his arteries is small and must beat with great rapidity to maintain the normal pressure of the blood. The adult ratio between heart and arteries is not attained until the later years of adolescence, previous to which time all exercises and games making heavy demands on strength and endurance are dangerous."

There is added danger when the adolescent boy or girl shows phenomenal growth in height or "shoots up over night" as we say. There is a sudden increase in the circulatory area, and the heart is under extra strain to meet the ordinary demands upon it. The pupil of this type who undertakes any athletics during this period of rapid growth should certainly be under constant supervision.

Less, rather than more exercise, would prove the safer measure of activity for those children during the rapid growth period, and they should be watched for any

evidences of persistent fatigue. The modified school program—such as is adopted for the "Open Air Schools" allowing one or two rest periods during the day, should be more generally available for such pupils.

It is unfortunate that so much of our school health service is discontinued when the child reaches high school. Not only the nurse's annual inspection, but frequent careful examinations, especially exercise tests for children beginning a strenuous program of physical education, might recognize some hearts that are being strained beyond the limit of safety. When it is the custom, as in most schools, to select one or more teams and let them bear the brunt of school athletics, it would seem that competent physical supervision might be secured for their limited number. Much would be gained if the physical director would admit that a young heart may be overstrained, if he would call upon an advisory physician to be on the lookout for those cases that show early or lasting heart effects, and would plan a modified program for them. And this lookout should continue all through the school life.

Williams in "Personal Hygiene Applied" suggests a danger that may arise even after the High School student becomes adapted to the demands of his athletic program.

For years it was thought that athletics injured the heart because of the strain on the circulation. Most workers are saying today that the heart is not injured by the performance of athletics unless there exists at the time of contest an infection. He refers to Sir James MacKenzie's work on the "poisoned heart" and continues, "If the tonsils or teeth are infected or if a focus of infection is present any where in the body vigorous exercise is not desirable. One who has a normal heart may engage freely in exercise if the body is free from infection."

A heavy cold, often called "flu," may weaken the heart so sudden strain brings collapse. A high school senior, trained for track and basket ball, played a match game just after a so-called "flu attack," and spent fifteen months, the first six of them mostly in bed, recovering from the acute dilatation of the heart resulting from the strain on the weakened muscle.

Athletic strain at times is terrific. Tait McKenzie tells of a trained Indian runner whose pulse rose after a 220 yard dash from 84 to 168 beats per minute and did not return to normal for thirty minutes. The

normal heart should return to its pre-exercise rate with two minutes rest.

Dilatation may be induced in any heart where the muscle is deficient in contracting power or "tone." Doctor S. Calvin Smith calls attention to the value of measuring the size of the heart before and after exercise, marking the position of the left border on a line drawn from sternum through the fifth interspace. The healthy heart becomes smaller with exertion, but many hearts after exercise show the left border moved outward and the apex beat displaced.

Doctor Sutherland cites two such cases, a nervous girl and a rheumatic boy, where the tendency to dilatation persisted long after the general health had greatly improved.

This dilatation stretches the heart wall so the valve may not quite close and there is a relative mitral insufficiency with systolic murmur at apex. Some of the so-called functional murmurs are due to temporary dilatation of the heart.

Dilatation often repeated produces hypertrophy and as Sir James MacKenzie says, "a hypertrophied heart is always in impaired heart and, however complete the compensating hypertrophy may be, there will always be a limitation in the field of response." This possibility of dilatation of the heart is not a mere fancy. Tait McKenzie quotes the experience of a group of English school boys. There were forty of them, seven to fourteen years of age, out on a week's holiday. They did long walks, did hill climbing (more being permitted the older boys) and gave other time to football and the like games. They led such active lives that the eight hours for sleep was decidedly insufficient. Five days after their return, twenty out of thirty-three showed cardiac enlargement of various grades. This was to be expected but after two and a half months ten of the boys, nearly all of them the younger ones, still had appreciably dilated hearts. It is clear, he says, that the normal limit of endurance in these boys was surpassed and that their hearts would require one or two years to recover normal relationship to the needs of the circulation.

Since many of the children of school age are "potential cardiacs" with heart muscle weakened by latent or evident infections, showing deficient heart powers by rapid pulse, with or without dyspnea or precordial pain ("Stitch in the side"), since the normal heart has heavy strain during the rapid growth period of adolescence, and the

weakened heart is still more endangered, and since in many school systems the beginning of high school life and of extra strenuous athletics comes about this time of adolescence.

It is the duty of the school health service to arrange for some oversight of the high school students, to estimate the endurance of pupils who are under athletic training, and to secure a program of physical education in the junior and senior high schools capable of modification to meet the needs of the individual pupil with at least as much attention to personal development as to competitive athletics.

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Unusual Impacted Fracture of the Neck of the Femur

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Read before the Montgomery County Medical Society, Independence, Kan., April 17, 1925.

The patient, E. C. M., white, age 21 years, single, weighing 142 pounds stripped, well developed and well set-up, of athletic type. Occupation, bronco-buster and general hand around barn and premises of a large stock dealer. This patient came under observation July 5th, 1924, complaining of pain in the right hip-joint, stating that it had been paining him for some time and seemed to be gradually growing worse. When asked if he had had an injury, stated that about seven weeks previous he had an injury while working in a sand pit lifting heavy timbers with a crow-bar, that he had felt a sudden sharp pain, so severe that it made him sit down or rather lie down. But the pain did not stop. After a while he regained his feet and worked around for two or three hours before quitting time, favoring his leg all he could. The pain

was so severe that night that it interfered with his sleep. The next morning he was told by his Boss to lay off from his work for a while. From this time on, all heavy work was discontinued. When asked why he did not rest his hip and get a doctor, he answered that he thought that he had just wrenched the joint and that it would be all right in a few days, and besides that he didn't want his associates to think he was a complainer or "whiner" as there was so little evidence of an injury. He did light work around the ranch such as driving to the postoffice after the mail, watering and caring for some of the stock at the barn and doing many odd jobs that kept him busy without too much exertion, ever hopeful that the soreness would disappear. He noticed that his foot turned out when he walked and that he had developed a slight limp. He also noticed that when he walked very much, it caused more pain than when keeping quiet, but that he thought the only way to regain the full use of his hip was to walk all he could and he found that this increased the pain, but endured this pain in the belief it was a benefit, often being so sore that he was unable to sleep at night. He tried riding horseback and found the pain so severe after a few miles that he was forced to descend and walk to get relief, and after several attempts finally gave up riding entirely. Yet the pain continued and about the last of June, he was persuaded to seek medical aid. He went to Wichita where an x-ray was taken and was advised that his trouble was an arthritis of the right hip-joint. He then came home to Independence a day or two later and consulted a local doctor, then an osteopath. He then went to a doctor at Coffeyville where he was examined and another x-ray picture was taken but this skiagram was not a successful one and no diagnosis was made.

History card, July 5th, shows the following:

Family History. Father and mother both alive and healthy, residing on a farm six miles from this city; brothers and sisters healthy. Negative family history of T. B.

Personal History. Had infantile diseases, had typhoid six years ago, no serious injury during childhood or adolescence. No loss of motion or pain in right leg previous to May 17th, when present injury occurred. Before injury on more than one occasion rode horseback in company with his Boss as high as 75 miles in a day.

Symptoms. Both subjective and objec-

tive symptoms of pain in the right hip-joint; the body weight on right leg caused slight pain in the right hip-joint. Scoliotic spine well marked. Patient on walking, has a perceptible limp, right foot everted. Measurement, right leg one inch shorter than the left; transverse measurement, the right leg one-half inch shorter than the left; right thigh, one-half inch smaller in circumference than the left. In recumbent position, the right leg rotates markedly outward, everting the foot. The great trochanter above Nelaton's line. Tenderness to pressure around the joint. Limited abduction as well as adduction, a slight roughness on movement elicited on abduction. Percussion jar on right heel caused slight pain in hip-joint.

Urine Examination. Sp. Gr., 1016; acid; Alb., neg.; Sug., neg. Treatment. The leg was put at rest for several days with little or no improvement except there was less pain. X-ray pictures were taken about July the 17th which showed an enormous cell infiltration around the neck and head of the femur. These pictures not being distinctive of fracture, an arthritis or possible sarcoma was considered. A Von Pirquet test was made which was negative; a Wassermann was negative. A focal infection was sought for without results. The leg and hip was put in plaster cast with absolute rest for four weeks and a second picture was taken with much better results for a diagnosis, and shortly after this a third was taken of both hips and pelvis for comparison. The patient can walk but will always have a slight limp. His leg rotates outward and foot everted. As for riding, he will have to give that up forever because of the extremely short neck. Abduction causes a mechanical pressure superiorly of the great trochanter against the ilium when seated in a saddle. The patient at present has no pain or discomfort except just before a storm, then complains of aching pains that are not severe but rather uncomfortable. He has tried to ride horseback several months since treatment, but finds it impossible.

I am reporting this case because of its extreme rarity. I have not, in my limited library, a single case reported where there has been recorded an impacted fracture of this type where the patient continued to walk on it. Several authors state that it might be possible but in every incident recorded it was only a few steps after the fracture that the *impaction broke up* and the limb became useless. This fracture was

by tortion, the most common method in this type of injury. Fractures of the neck of the femur are very common in elderly people, but uncommon in strong healthy youth. Fractures of the neck of the femur barring war wounds, are as a rule from indirect violence.

Conclusion. With the history of trying to move a 1200 to 1400 pound weight with a crow-bar in a sand pit, where the footing is insecure, and while undergoing such exertion, having a sudden pain in his right hip, without the complete loss of his leg following; and the history of constant pain; with the absence of any focal or general infections, and the x-ray findings; also taking into consideration the confirmation of previous riding and athletic stunts performed, leaves no doubt as to the character of this extremely rare, if not the only impacted fracture of the neck of the femur where the fracture under constant use, *did not break up*.

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UNIVERSITY OF KANSAS CLINICS

Clinical Lectures, March 10, 1925

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Case 1. *Diagnosis:* Congenital Hypertrophic Pyloric Stenosis.

Baby Middleton, four and one-half weeks of age, breast fed, vomiting all food since two weeks of age. In addition to the vomiting the child has small constipated stools of the hunger type. There has been a marked loss of weight and a peristaltic wave is evident. Barium meals show practically no barium going through in four hours and not over 5 per cent in 24 hours. The tumor can at times be palpated during a wave. The child is being fed for three days on thick gruel without milk and then with some breast milk stirred in 1/1000 grain atropine 15 minutes before each nursing. The child has been toxic and shows the Biot type of pauseful respiration. On March 9th, Dr. Russell Haden gave 150 c.c. of father's citrated blood in the vein at the elbow, with the idea of getting the infant into a better condition before the operation is begun.

Dr. Orr is going to operate now upon the child under a local anesthetic performing the Rammstedt operation which is a modification of the Dufour-Fredet or Weber operation. Strauss has a more complicated modification of a plastic nature in which he removes a portion of the circular muscle of the pylorus. This baby is in fair condition and should make a good recovery especially

as the mother still has some milk in her breasts.

Description of the Disease.—Hypertrophic pyloric stenosis was first described in 1777 but during the century which followed little attention was paid to the disease. The clinical symptoms and pathological findings were well described by Hirschsprung in 1888 and by Ibrahim in 1905. Since then the literature has been full of reports and the treatment has been highly developed.

As regards family incidence, usually only one, but two and three and even four cases have been more than once reported as well as both twins.

Boys are affected three times as often as girls.

Age at appearance.—Seventy-five per cent begin in the first three weeks of life, some occurring in prematures and during the first week and some between the third and sixth week, the most common time is the third week.

The peristaltic wave is due to increased stimulation or spasm of the stomach wall and is seen beginning at the cardia below the left costal angle, and passing transversely above the umbilicus to the pyloric end as far as the right mammary line.

Gastric retention is always present, and when less than 30 per cent of food has gone through the pylorus in four hours, it is advisable to operate.

Prognosis.—The child becomes greatly emaciated and dies from starvation, intoxication or infection such as pneumonia. In cases that recover under medical treatment the hypertrophy (tumor) is persistent for weeks and months. Some infants have a marked tenacity of life and even when apparently in extremis will recover as soon as the operation is over. Such a case was treated by Dr. Orr and me eight years ago.

Treatment.—Medical, atropine solution 1/1000 from one to four drops for its inhibiting effect upon the vagus; thick feeding of cereal such as farina with a spoon. The explanation of success and the retention of thick food has recently been offered by Rogatz, (A. J. D. C., Nov. 1924, also July 1924,) in which he described the *peristolic* function of the stomach. This function is the ability of the stomach to shape itself around the food taken. Obviously this cannot happen when liquids are fed and as a result with hyperperistalsis the liquid and the swallowed air are vomited. Such a stomach filled with fluid is pear or flask-shaped, sometimes oval.

Cream of wheat or farina cooked in water does not liquify as readily in the stomach as when the cereal is cooked in milk. When thick food is fed, there is little air swallowed, the stomach closes around and grasps the thick food, retaining it in the stomach while the air is forced out.

Operative Treatment.—As this child showed no improvement, it is advisable to no longer follow the preceding method of medical treatment, but to proceed with the prompter method, that of operation. As regards the time that one should wait before operating, it is my opinion that a few



Baby M.—Barium-filled stomach showing that nothing is passing the pylorus.

days will suffice to tell whether anything can be expected of nonsurgical treatment. Poynton and Still of London advise operation as soon as the diagnosis is made so that the mother's nursing will be little interrupted. Sauer and many others in this country treat all cases medically as long as the child does well.

As you will see the pylorus in this case is definitely enlarged, olive-shaped and

when the muscular coat is divided, the mucous membrane pouts through the incision. Food will now pass through without any interference.

Postoperative Treatment.—Feeding: In one hour after operation this child will be given a teaspoonful of water, at two hours a teaspoonful of breast milk, alternating each hour with the water and increasing the quantity by a teaspoonful until an ounce is fed. At the end of eight hours, the baby will be put to the breast for ten minutes. The body heat is to be maintained by hot water bottles. The atropine will be continued for 24 hours and if vomiting recurs thick feeding will still be used.

March 17th. The progress has been satisfactory, the child having gained 6 ounces in the past week with never a vomiting attack since the operation. The stools are good, the temperature normal. The baby gets only about one ounce from nursing the mother and an additional two ounces from the bottle containing thick cereal-milk-malt sugar cooked together.

March 24th. The wound is well, the vomiting has never recurred and the infant is being taken home today.

It is interesting to know what becomes of the tumor. Martha Wollstein has studied the scar formation after the Fredet-Rammstedt operation and finds that two years afterward only a line marks the wound where the circular muscular fibers have been cut. The tumor is cured in two weeks, and the healing is due to the growth of the serous and submucous layers.*

Case 2. *Diagnosis*: Nutritional Disturbance in a Bottle Baby Cured by the feeding of Lemon Juice Milk.

Another case which is of interest because of previous vomiting and failure to gain is that of this infant, Baby P----, born December 5, 1924, weighing 5 pounds 6 ounces at birth, cesarean section. The mother is a confirmed morphine addict and has had no breast milk. The infant began to vomit his artificial feeding and on the fourth day had lost ten ounces which is a rather large loss for a small baby in the new-born period. Gastric lavage twice a day was used and the baby's vomiting stopped, due furthermore to the use of 1/1000 grain of atropine sulphate before each feeding. The weight had not begun to increase at 16 days, then the formula was changed to:

Whole milk (soured with 30 drops
U. S. P. Lactic acid) ----- 16 ounces

*Wollstein, Martha: A.J.D.C., 23, 511, June 1922.

Boiled water -----16 ounces
 Corn Syrup ----- 1 ounce

The infant was given 3 ounces of this 7 times a day, taking about 300 calories a day. This caused a consistent gain until the 5th week of life when the weight became stationary.

At this time a more concentrated milk was prepared and soured with lemon juice according to the suggestion of Alfred Hess. The formula:

Boiled whole milk -----20 ounces
 Lemon Juice ----(2½ Drachms) 10.5 c.c.
 50% Corn Syrup solution----- 2 ounces
 Boiled water ----- 4 ounces

Total food value of this formula 530 calories, 57 cal. per lb. of weight. His weight promptly started up again, the weight curves having been steadily upward. At 2½ months of age the corn syrup was increased to 2½ ounces. The baby weighs 9 lbs. 8 oz. at three months of age, has always had perfectly smooth digested stools, one or two daily, the nutrition is good, the baby is healthy, happy, nurses eagerly all his food. He sleeps well and is never nervous.

At first thought the addition of two-thirds ounce lemon juice to a quart of undiluted milk seems radical, but you will be surprised how pleasant a taste lemon gives to boiled milk especially after the addition of corn syrup. That it has been well-tolerated in this case, there is no denial.

The present vogue of feeding acidified milk is founded upon good theory and successful practice. The theory has been proven by chemical gastric analyses to be correct: the amount of hydrochloric acid secreted by the infant stomach may not be sufficient to neutralize the high amount of buffer salts (calcium caseinate and phosphate) which are present in cow's milk if fed in sufficient concentration to supply the infant's needs. These salts are therefor neutralized before feeding by the souring of the milk whether in the form of butter-milk, lactic acid milk, hydrochloric acid milk, acidophalous milk or vinegar milk (recently suggested but which I have not tried).

The use of lemon juice answers the same purpose of neutralizing the excessive salts in cow's milk as the other varieties of acidification and it has in addition the marked antiscorbutic properties of the lemon. Hess has tried his method in many cases and it proves satisfactory. I would think it advisable to limit its application to normal in-

fants who need artificial feeding until one can get an idea of the results in a large series of cases. The milk may be diluted with boiled water, with cereal water in any proportion suited to the individual child and its weight, or it may be given whole or with very little water added where a large amount of concentrated food is necessary to produce a gain. This latter is the case when the stools are smooth and the infant not gaining from 6 to 8 ounces per week. An increase in the strength of the milk formula and the addition of more sugar make it possible to give even a young infant a satisfactory amount of food of a digestible nature.

Clinic of Dr. G. Leonard Harrington

Department of Psychiatry

SUGGESTION, A FORM OF PSYCHOTHERAPY

A deeper understanding of suggestion reveals its significance and its universality. Titchener, professor of psychology at Cornell, defines suggestion as "any stimulus external or internal accompanied or unaccompanied by consciousness, which touches off a determining tendency."

Determining tendencies may be either inherited or acquired "systems of reflexes which function in serial order when the organism is confronted by certain stimuli" (Watson.) In the human the inherited determining tendencies are considerably less organized than in the lower animals. This lack of organization makes the human more dependent but at the same time gives a greater opportunity to transform the power of the original tendencies into power that permits a greater contribution to society. It is this plasticity that makes Dewey say the child is the pivot of society.

Education is the process by which this raw material is woven into habits. Burnham holds the determining tendencies are the background or basis for education, whether for health or for scholarship and the method of sound education, whether natural or formal, is suggestion. The essential characteristic of habit is not repetition but dynamics. Habit is "an acquired predisposition to ways or modes of response—special sensitiveness or accessibility to certain classes of stimuli, standing predilection and aversion—it means will—it is always looking for opportunity for expression." (Dewey.)

The weaving process is carried on largely, perhaps, through the instrumentality of the conditioned reflex. The original tendencies

are multiplied into many by associating with the primary, adequate stimulus a secondary inadequate one—this can be done apparently through any receptor field. Pavlov found the placing of ice on the dog's back could bring about the flow of saliva if this secondary stimulus had been previously associated with a primary adequate stimulus—meat under the dog's nose. Recently a boy was seen going across a yard with a flock of chickens following him. At the time he had no food but since the stimuli from his person had been previously associated with the stimuli from food the above response occurred. On seeing a pupil that looks or acts in any way like a previously taught pupil a teacher may react toward the new pupil as she did toward the earlier one. Children have been mistreated because of this mechanism—the process may be unconscious.

The sensory fields through which these primary or secondary stimuli pass act as so many finger-like processes projecting into the environment and when they contact adequate stimuli the associated energy is "touched off."

To get at the energy of the organism, therefore then, means the finding of adequate stimuli, unconditioned or conditioned, and exposing the organism to them. This may be done consciously or unconsciously. Active suggestion is to do the thing consciously. General Pershing, it is said, asked the War Department to send musicians to France—all know the energy releasing power of music. Osler in his little book, "A Way of Life," tells how he, when a young man, read in a catalogue of a Canadian college that the students of the senior class were permitted to go into the parlor in the evenings to learn to sing and to dance. He says he never learned to do either but at that college he met Dr. Johnson, who knew nature and how to get boys interested in it. The statement in the catalogue "touched off" his interest in music and dancing which brought him in contact with Dr. Johnson who "touched off" his interest in nature. Latent powers were thus brought to the surface through the instrument of an external stimulus—suggestion. This was true of Oliver Wendell Holmes for he says that after hearing Emerson he felt as though he were walking on air.

In applying the above principles in psychotherapy a helpful plan is to have the patient relax. An absence of tenseness permits automatic physiological processes to

carry on as satisfactory as any possible physical or chemical limitations will allow. This gives a feeling of well-being for it liberates the building up processes of the body. Then, too, freedom from tense states liberates the subconscious mind so that it can send into the conscious mind the material necessary to meet the present situation. A fear of failure on the part of the public speaker inhibits his mental processes so that even though he has something worth-while to say not an item of it comes into his conscious mind—he is "stage struck."

Relaxation not only facilitates certain physiological and psychological processes but reduces resistances so that stimuli from the psychotherapist may more easily reach the "vital reserves" (determining tendencies) within the individual. In this work it is therefore necessary to know something of the acquired tendencies as well as to remember the inherited tendencies for an effort is to be made to "touch off" the worth-while tendencies.

A man in the thirties came in complaining of a very distressing fear of his superior officer. This fear had made him restless, sleepless and appetiteless. His history revealed the fact that he had been greatly frightened for some time by a male relative a good many years ago. He had had a good education. He is a sober, serious and altogether worth-while man. The company for which he worked had transferred him from one department to another, presumably to teach him the business. But in spite of all this his fear was about to overcome him. He was relaxed four or five minutes and in that short time he was told in a very emphatic way that he had large quantities of "vital reserves" for nature at his birth had given him his biological inheritance written as systems of reflexes in his nervous system and that through this nervous system these systems of reflexes were connected up with the storehouses of power in his organs, and too in addition to that he had power as the result of his personal experiences (acquired determining tendencies—habits) at home, school, college and in the business world. At another sitting the idea that he could get another job if it were desired was strongly emphasized by saying anyone with his training, general and special, could get one for the business world was looking for his type.

Well, the man after a few treatments felt freer and in a short time asked for and re-

ceived a raise. And then the head office sent special instructions about his future work. This goes to show the man is of real worth and all that was done was the releasing of his latent powers.

Bateson, the noted English biologist, says the great difference between the genius and the common man is that the genius is free of the inhibitions that interfere with ordinary men. If this is true then there is much to be done through relaxation, mental and physical, and suggestion. The former tends to remove inhibitions and the latter to "touch off" the determining tendencies.

Suggestion is one form of psychotherapy.

SUMMARY

1. Suggestion is "any stimulus external or internal accompanied or unaccompanied by consciousness, which touches off a determining tendency."

2. Inherited determining tendencies (instincts) and acquired determining tendencies (habits) are dynamic.

3. The conditioned reflex enlarges the field of activity of the inherited determining tendencies by increasing their contacts with the environment.

4. The great task of life is to expose the organism to the stimuli that will "touch off" the determining tendencies in such a way as to make the greatest possible contribution to society.

5. It is held that the great difference between the genius (individual using well and fully his biological and sociological inheritances, i. e. inherited and acquired determining tendencies) and the common man is the fact that the genius is free from the inhibitions by which ordinary men are handicapped.

6. If the above statement about the genius and the common man is true then there is much to be done through relaxation and suggestion.

—B—

HISTORY OF THE KANSAS MEDICAL SOCIETY

(Continued from May, 1925)

The next annual meeting was held on May 11, 12 and 13, 1880, at Leavenworth. Fifty-seven members were present at this meeting and thirty-four were admitted to membership. One member was expelled for making false representations in his application, claiming to be a graduate of Rush Medical College, which claim was shown to be false.

A resolution was adopted encouraging

the organization of a State Pharmaceutical association, and another resolution was adopted:

Resolved, That a committee of three be appointed by the Chair to memorialize the legislature and cooperate with the druggists of the state in procuring legislation regulating the sale of drugs."

The report of the State Board of Examiners was read. This report showed that since the appointment of the board, certificates had been issued to 663 graduates upon presentation of diplomas and to 148 applicants after examination. Two hundred and sixty-seven applicants were examined by the board and of these 119 were rejected. Thirty-nine applicants failed to appear or complete their applications and their names were included among those rejected. Only applicants belonging to the regular school were examined. The board had officially visited 63 counties. According to a provision in the law physicians practicing in counties that were not visited officially by some member of the board were exempt.

The law provided that no examinations should be held after April 1, 1880, so that 158 applicants who applied after that date were refused certificates.

It was expected that members of the Society would be exempt, under the provision of section 12 "that no person who holds a certificate heretofore granted by either of the societies mentioned in the 2nd section of the act shall be compelled to procure a new certificate, or be liable to any penalty for failure to do so." The board, however, ruled that under section 4, it was authorized to demand a fee of five dollars from each graduate or licentiate. So that the hundred or so who joined the Society at the last meeting were somewhat disappointed. The board also ruled that those who had practiced in the state for five years were not exempt as provided in section 12 because provision had been made for only two forms of certificates, one for graduates and one for those licensed by examination. And these also were requested to present themselves for examination with the required fee.

But trouble was already brewing as indicated by the following extract from the president's address at that meeting: "We have been operating under this law for nearly one year, and while we find in the main it served the purpose, as a member of this Society I desire to enter my protest against any law creating more than one

board, and which in this state has well nigh had its object defeated by the cupidity and vileness of one of the boards created by the law * * * In the last few weeks an effort has been made to cast a doubt upon the legal existence of the corporate powers of this Society, and an opinion has been procured from a law firm to the effect that the Kansas Medical Society has no legal corporate existence, and had no authority to appoint a Board of Examiners under the law of 1879, and that certificates issued by such board will not protect the holders of the same from the penalties of the act. This opinion was procured at the instance of the board, previously mentioned as mercenary, and published, at advertisement rates, in different parts of the state, as well as in circular form, attached to an advertisement of the "Eclectic Board," they, the "Electric Board," considered the certificates issued by the Board of Examiners of this Society "invalid in law," and that its Board of Examiners would issue certificates to all who hold certificates from the board appointed by the Kansas Medical Society, on the payment of five dollars, and, as I understand, in direct violation of the express limitations of the law, which provides that no examination shall be held after the first day of April, 1880.

The written opinion of eminent lawyers has been obtained by the president of the Board of Examiners of the Kansas Medical Society, in which it is unqualifiedly held, that it has a legal corporate existence, and that the certificates issued by its Board of Examiners are legal, and will fully protect the holders.

The whole matter has the look of an unprofessional and unwarrantable attempt to levy blackmail against the members of the regular profession. It is sincerely to be hoped that none will be, and I believe none of the profession have been, gulled by the trick, and my advice is, that no further notice be taken of the matter."

A petition was filed against the Society by the attorney general on May 27, 1880. From certain statements made by members of the board it is presumed that the action was brought at the instance of the board, that the statutes of the Society as well as the law might be definitely determined. The case was not decided until February, 1881. There are so many points of interest in this decision it seems best to give it in full.

THE STATE OF KANSAS, ex rel., v. D. W. STORMONT, et al.
Syllabus By the Court.—Horton, C. J.

1. The Kansas Medical Society, a Legally-Existing Corporation. The Kansas Medical Society was lawfully chartered by the territorial legislature, February 10, 1859, and endowed in its act of incorporation with the attribute of perpetual succession forever. Held, That the act is not in conflict with § 1, art. 12 of the state constitution; that the acceptance of the state constitution by congress, on January 29, 1861, did not suspend or repeal the act; that if the state has the power to suspend or repeal the act, (which we do not decide,) it has never exercised, nor attempted to exercise, the power; and held, further, that the society is a legally existing corporation at this time.

2. Ch. 122, Laws of 1879, Invalid. The provisions of the act of the legislature, entitled "An act to regulate the practice of medicine in the state of Kansas," approved February 27, 1879, confer corporate powers upon the Kansas Medical Society, and the other incorporated societies therein named; and as this act confines the designation of examiners to three societies only, it is in the nature of a special act and is therefore obnoxious to §1, art. 12 of the constitution.

ORIGINAL PROCEEDINGS IN QUO WARRANTO

The petition herein was filed in this court by the attorney general, May 27, 1880; the answer of the defendants, D. W. Stormont, W. W. Cochrane, C. C. Furley, R. Morris, S. F. Neely, C. H. Guibor, and G. W. Haldeman, was filed July 29, 1880; and the demurrer thereto, August 25, 1880. The act incorporating the Kansas Medical Society which act was pleaded in the first defense stated in the answer, is as follows: (see page 42, Feb. 1925.)

The defendants admitted that they had so acted, and that they do so act, as the board of examiners of the Kansas Medical Society; but said that they had so done, and that they so do, solely by virtue of the act aforesaid, and by virtue of being members of that corporation and among the regular successors of the incorporators named in the act, and by virtue of their appointment as such board of the society.

Willard Davis, attorney general, and A. B. Jetmore, for plaintiff.

John Guthrie, Geo. S. Brown, C. M. Foster, and Peck, Ryan & Johnson, for defendants.

The opinion of the court was delivered by

HORTON, C. J.: This is an original action, commenced in this court by the State of Kansas on the relation of the attorney general, against the defendants, D. W. Stormont, S. F. Neely, C. C. Furley, C. H. Guibor, R. Morris, W. W. Cochrane and G. W. Haldeman, who comprise the board of examiners of the Kansas Medical Society, appointed under the provisions of the act of the legislature, entitled "An act to regulate the practice of medicine in the state of Kansas," approved February 27, 1879. The object and prayer of the petition is, to require the defendants to show by what authority or right they exercise the duties of medical examiners. The answer sets forth that the Kansas Medical Society is a legally-incorporated body, and that the defendants exercise their duties by virtue of the act of February 27, 1879. To this answer the plaintiff has filed a general demurrer. The disposition of this demurrer is to determine the case. It is contended by the counsel representing the state, that the Kansas Medical Society is not a legally-incorporated body; and that it does not possess the power to appoint a board of examiners under the act of 1879. The reason for this contention, as summarized by counsel, are:

1. That the charter of the society has expired by statutory limitation.

2. That the power of the territorial legislature, being permissive and temporary only, could confer no vested right by contract or otherwise, which would bind the state against its consent.

3. That the charter of the society was granted by a territorial act, not accepted or preserved by the state; and

4. That the legislature did not, and has not the power under the constitution, to recognize or validate the existence of the society, nor to grant it additional powers by the act of 1879.

As all these objections to the existence of the corporation, and the future action of the defendants as a board of examiners, are fully discussed in the briefs, we shall consider them without reference to whether they are fairly raised upon the record.

The society was incorporated by a special act of the territorial legislature, on the 10th day of February, 1859. The first section of the act provides "that Amory Hunting, S. B. Prentiss, J. P. Root, . . . and their associates and successors, who shall be elected to membership as hereinafter provided, are hereby constituted a body corporate and politic, by the name of the 'Kansas Medical Society,' and shall have perpetual succession forever." It is conceded that the legislature of the territory had the power to incorporate the society by a special act. Having the power to create the corporation, it had the further power to endow it with all the attributes of a corporation, not inconsistent with the provisions of the constitution of the United States and the act organizing the territory of Kansas, approved May 30, 1854. Chief Justice Marshall, in giving a practical definition of a corporation and its uses, says: "It is an artificial being, invisible, intangible, and existing only in contemplation of law. Being the mere creature of law, it possesses only those properties which the charter of its creation confers upon it, either expressly or as incidental to its very existence. These are such as are supposed to be best calculated to effect the object for which it was created. Among the most important are immortality, and if the expression may be allowed, individuality—properties by which a perpetual succession of many persons is considered as the same, and may act as a single individual . . . By these means a perpetual succession of individuals is capable of acting for the promotion of the particular object, like an immortal being." (Dartmouth College v. Woodward, 4 Wheat. 636.) Therefore, within this definition, immortality is a legitimate attribute to be conferred on a corporation. Of course, we speak of such immortality only as may be created by law. Even then, it is not literally true that a corporation is immortal, as in point of fact, like natural persons, it is subject to death and dissolution in various ways, and in some states can only be created for a limited period, and in others, like ours, only organized under general laws, which may be amended or repealed at any time. (State Const., art. 12, § 1.) Yet, when not limited or forbidden by constitutional or organic law, the right to confer perpetual succession by legislative authority, so far, at least, as human agency can confer such an attribute, cannot be logically questioned. Perhaps we might go farther and say, (speaking in a comparative sense,) a corporation is presumably immortal; that words of limitation or exception are essential to deprive it of that attribute.

tation or exception are essential to deprive it of that attribute.

As the "Kansas Medical Society" was endowed with perpetual succession or immortality in its creation, we next inquire whether the constitution of the United States, or the organic act, or any territorial law, restricted or limited its term of existence. It is not alleged that the act of incorporation contravened the fundamental principles of the constitution of the United States, or the organic law of the territory; it is contended only, that the charter expired by limitation on February 10, 1869, under the provisions of the act of 1855 concerning corporations. This act, among other things, provided as follows:

"Sec. 1. Every corporation, as such, has power, first, to have succession by its corporate name for the period limited in its charter, and when no period is limited, for ten years." (Laws 1855, pp. 185, 193).

As the special act of February 10, 1859, creating the society, only limited the life of the corporation to the end of all human affairs, or the close of finite existence, the law of 1855 has no application. Again, it was not in the legislative mind that the law of 1855 should apply to this act, because the next day after its adoption, (February 11, 1859), the general corporation act of 1855 was repealed by the territorial legislature. (Laws 1859, p. 544, § 1.) Furthermore, the legislature of 1855 could not impose any limitation on the legislature of 1859, and the latter legislature, having granted the society "perpetual succession forever," the only limit to its existence is, the end of all things, unless subsequent laws, constitutional or state, have or shall suspend or repeal its charter. This much is clear—the charter did not expire by the law of 1855.

The second objection deserves only a passing notice. Whether the state legislature can suspend or repeal the special acts of incorporation adopted by the territorial legislature prior to the admission of the state into the union, is not before us, and, so far as this case is concerned, it may be left an open question. No attempt has been made by any state legislation to repeal the charter of the society, or limit its corporate life. On the other hand, the act of February 27, 1879, in clear language recognizes the society as an existing corporation. Until the institution of this suit, no attempt had ever been made to debar it from doing business; nor had its life ever before been attacked or threatened by a state official.

If we properly understand the nature of the third objection, it is that as the act of incorporation was granted by the territorial legislature, and as § 1, art. 12 of the state constitution inhibits the state legislature from conferring corporate powers by special acts, the charter of the society, upon the acceptance of our constitution by congress, at once ceased to have validity—that then its life instantaneously ended. In brief, that the territorial act of incorporation then suffered sudden and permanent syncope by the higher law of the constitution; and as the act of incorporation has not and could not be rehabilitated, or the corporate existence revived by the state legislature, on account of § 1, art. 12, the society had no corporate existence after the admission of the state into the union. Now, § 4 of the schedule of the constitution provides that "all laws and parts of laws in force in the territory at the time of the acceptance of this constitution by congress, not inconsistent with this constitution, shall con-

tinue and remain in full force until they expire, or shall be repealed." In *The State v. Hitchcock*, 1 Kan. 178, this court held that all laws passed by the territorial legislature, until superseded, according to the mode prescribed by law, if their provisions were not in conflict with the constitution of the United States, or of the state, were valid. But counsel assert that the territorial act is inconsistent with § 1, art. 12, which reads: "The legislature shall pass no special act conferring corporate powers. Corporations may be created under general laws; but all such laws may be amended or repealed." This section has already been judicially interpreted by this court as a limitation upon the legislative power of the state, as prospective, not retroactive, and therefore it has no restraint or control over the acts of the territorial legislature. In *Atchison v. Bartholow*, 4 Kan. 124, it is said "that the whole of article 12 is merely restrictive of the general power conferred by section one of article two. It adds nothing to the power of the legislature, nor could it have been so intended. All legislative power upon the subject had already been conferred. It may be true, that the legislature, in exercising the power, might have done precisely what this clause requires of it, had it been omitted; but it seems to have been thought expedient to compulsorily restrain its action, and such alone was manifestly the intention of this article. . . . Before the adoption of the constitution, the practice was to create corporations and organize cities and towns by special laws. . . . To prevent just such abuses, and others equally meretricious, the twelfth article was inserted in the constitution."

Again, in *The State v. The Lawrence Bridge Company*, 22 Kan. 456, the language of the opinion is: "Before the adoption of the constitution, the practice was to create corporations by special laws. This practice resulted in partial, vicious and dangerous legislation. To correct this existing evil, and to inaugurate the policy of placing all corporations of the same kind upon a perfect equality as to all future grants of power, . . . it was ordained," etc.; and in speaking of § 25, ch. 23, of Gen. Stat. 1868, it is stated, p. 458: "If sustained, corporations can again be created or extended in their existence all over the state, with such powers and franchises as the territorial legislature may have conferred by special charters at its pleasure or caprice when its power unrestricted by any such wholesome constitutional provision as is imposed by § 1, art. 12, on the legislative power of the state."

The Lawrence bridge company continued to exist as a corporation to February 9, 1878, although it was created by a special act of the territorial legislature, on February 17, 1857, notwithstanding § 25, ch. 23, Gen. Stat., had no effect to continue it in the enjoyment of its franchise. The charter of that corporation, although not preserved or continued in force by the state in any manner other than as the Kansas Medical Society has been preserved, existed in full vigor for over seventeen years after the acceptance of our constitution by congress. The "Paola town company," chartered October 13, 1855, did not cease to exist till 1865—over four years after Kansas became a state. (*Krutz v. Paola Town Co.*, 20 Kan. 397). If the theory of counsel is correct, then every ferry, bridge, railroad or other like corporation, incorporated by special acts prior to the admission of Kansas as a state, was stricken down and blotted out in 1861. Certainly no such wholesale slaugh-

ter of corporations was ever intended by the framers of the constitution, (even if they had the power to accomplish it), and neither reason nor authority supports such a doctrine. We doubt even whether counsel would be willing to follow the logical results of their argument to this extent. (*Vincennes University v. Indiana*, 14 How. 268).

Our conclusions upon the foregoing matters are, that the Kansas Medical Society was lawfully chartered by the territorial legislature; that it was legally endowed with perpetual succession forever; that the constitution did not suspend or repeal its charter; that if the state legislature has the power to suspend or repeal the charter, (which we do not decide), it has never exercised, or attempted to exercise, the power, and that the society is a lawfully-existing corporation.

The final objection, and the most serious of all, is, that the act of February 27, 1879, grants to the Kansas Medical Society additional authority, thereby conferring corporate powers by a special act, and that it is therefore obnoxious to § 1, art. 12 of the constitution of the state. If this objection is valid, it is equally fatal to the action of the Electic Medical Society and of the Homeopathic Medical Society, in appointing examiners, as the latter societies are, in the law, also denominated corporations, and we believe that their corporate existences are unquestioned. If the Kansas Medical Society were not a corporation, but only an association of individuals, we would have no hesitation in deciding that the legislature had the constitutional right to devolve the power conferred; and if the defendants had not pleaded the act of incorporation, but alleged only that they were acting as citizens, or as an association of citizens, the defense would be sufficient. We could have treated the words, "corporations organized and existing," as merely "descriptio personarum." The state constitution is only a limitation of powers, and as there is no provision forbidding the legislature from authorizing persons, or an association of persons, within reasonable limits, to designate examiners, with the duties defined in the law, its provisions would not be repugnant to the constitution, if confined to persons or societies not incorporated. Clearly, we think, the state, in the exercise of police power, may provide for boards authorized to examine persons seeking to be admitted to practice medicine, to be designated by any citizen or citizens. The fact that the Kansas Medical Society and the other societies named in the law are corporations, presents fully and fairly the inquiry, whether in fact the law confers corporate powers. It is said, in *Gilmore v. Norton*, 10 Kan., p. 491: "That any power conferred upon a corporation, and to be exercised by the corporation, is a corporate power; and a power that would not be a corporate power if exercised by an individual, becomes a corporate power when exercised by a corporation." The authority for these societies to appoint annually a board of examiners, (unless we may denominate it, the imposition of a public duty,) is the possession of some corporate power conferred by the legislature, and the exercise of such power by the incorporated societies, (unless it be the assumption of a public duty,) is the exercise by the corporation of corporate power. If the law limited the power conferred to the mere designation of examiners, whose duties are entirely separate and independent of the corporations, and if the control or direction of the corporations over the ex-

aminers ceased with such designation, and if the exercise of the selection of the examiners were not profitable or beneficial to them, the law might be held valid; this, upon the principle solely, that the state by the law imposed a public duty on the corporations, and the performance of the duty is the assumption of a public duty. To illustrate: Suppose that the legislature, by an act at its present session, should ask the city of Topeka to designate a civil engineer to examine and report to the board of statehouse commissioners, at the expense and under the direction of the state, the depth, strength and character of the foundation walls of the west wing of the state house just completed; or, suppose that the city of Leavenworth were authorized to appoint a commissioner, in the interest and at the expense of the state, to attend the world's exposition to be holden in New York City in 1883—we are inclined to think that such acts would be constitutional. In these cases there would be virtually no franchise or power, and no pecuniary profit to the corporations. But the law of 1879 does not restrain or limit the authority conferred to the mere designation of examiners; it requires that the certificates shall indicate the medical society to which the examining board is attached, (Laws 1879, ch. 122, § 3); that the candidates shall pay a fee of five dollars, in advance; that all the fees received by the examiners shall be paid into the treasuries of the medical societies by which the boards are appointed, and the expenses and compensation of the boards are subject to arrangements with the societies. (Sec. 8, supra). The act is entitled "An act to regulate the practice of medicine in the state," yet, under its provisions, all the fees collected go into the treasuries of the societies, and thus increase, more or less, according to the number of applicants, the funds or assets of each society. By these provisions a revenue is collected directly from each candidate for some one of the corporations, and, to the extent of the fees, less the expenses and compensation returned to the examiners, the law is for the emolument and benefit of the corporation. It confers power, the exercise of which secures pecuniary profit. Under the law, to some extent, a revenue is levied and collected on certain individuals.

Again, the power given the corporations to regulate the compensation and expenses of the examiners, gives them, in some degree, control over their appointees, and thus further corporate power is granted, the exercise of which by the societies is the exercise of corporate power. In our opinion, therefore, the law of 1879 does confer corporate powers on the several societies designated to select examiners, and is, in consequence thereof, unconstitutional and void. (*Atchison v. Bartholow*, 4 Kan. 124; *Gilmore v. Norton*, supra). We have arrived at this conclusion with some hesitation, conscious that if practicable, we should favor the validity of the law, so as to give it force and effect, rather than to avoid it, or render it nugatory; but the closer our examination, the more positive are our convictions of its conflict with the constitution.

Again, some of the provisions of the law are in the interest of the public health, and attempt, in a feeble way, to protect the public from empiricism and malpractice, and thus far, are so worthy in their general purpose that we would gladly uphold them, in all their terms; but the constitution is paramount, and in our allegiance to it, it becomes our duty in a clear case, to strike down the

statute, rather than to permit it to encroach upon or override the fundamental law of the state. As was said in *The State v. The Lawrence Bridge Company*, supra, p. 457:

"An evasion of so important a provision of the constitution ought not to be favored in any degree. The abuses and corruption in legislation are mainly the result of private and special laws, and the remedy, and the only remedy, which has proved effectual to prevent this, is found in severely depriving the legislature of the power to legislate for any citizen (or corporation) in preference to or at the expense of the whole. *Obsta principiis*—stop the beginnings, and stop them decisively, is very necessary to such legislation."

We have not thought it important to discuss the question whether the act is a special act in confining the selection of the examiners to three medical societies only, and in giving them special powers and privileges not conferred on similar corporations, as it seems to us no argument is needed to sustain the proposition. Counsel do not challenge this view, and comment thereon is useless.

At one time in our investigation, we hoped to so separate the invalid provisions of the law, as to preserve the duty to the several boards to designate examiners, but the invalid provisions are so united with the other portions, that it seems that it was the intention of the legislature to build up and aid pecuniarily the corporations named, as well as to carry out the general purpose indicated by the title; therefore the poison cannot be withdrawn, so that the life of the law can be saved. If the section which is clearly unconstitutional is stricken out, no provision is left for the payment of the examiners, nor for carrying fully into effect the law.

The result we have reached, after having endeavored thoroughly to understand the subject, obliterates for all practical purposes the statute. If the Kansas Medical Society cannot appoint examiners, and obtain the benefits of the fees collected from the applicants to its board, because it is a corporation, then the Eclectic Medical Society and the Homeopathic State Society (if they are corporations) are likewise debarred from enjoying the powers conferred by the law. If there are no societies to designate examiners, no examiners can be chosen; and if no examiners can be chosen, no certificates can be granted; if no certificates can be granted, the other provisions are lifeless, and without power of enforcement. It is better that this conclusion be declared at once, while the legislature is in session, than that it be postponed to a future day, because the consequences need not be disastrous to the public. The law-making power can easily correct and remedy the vice of the existing statute, and replace, in a very few days, the obnoxious law, with one harmonious and constitutional. The appointments may be lodged, perhaps, with the societies, if the power conferred is limited to the mere designation of examiners; or the governor or some other officer or person may be designated to select the examiners from the societies. Of course, the fees of the applicants cannot be turned over to two or three corporations, so as to confer on them alone special powers and privileges not enjoyed by other medical societies incorporated by law. As the fees already paid by the applicants have been advanced under a mistake of law and not of fact, no recovery of them can be had; unless, therefore, they are vol-

untarily returned to the candidates, the corporations will retain them. As the defendants have no legal authority to perform the duties of examiners under the act of 1870, owing to its invalidity, the answer fails to set forth a good defense, and the demurrer thereto must be sustained.

Judgment rendered for the plaintiff for all costs.

All the justices concurring.

The State of Kansas, ex rel., v. D. W. Stormont, et al. 24 Kan. 686.

(To be Continued)

R

Reduction of Increased Intracranial Pressure

Max M. Peet, Ann Arbor, Mich. (*Journal A.M.A.*, June 27, 1925), says that the slow reduction of increased intracranial pressure in the absence of shock, hemorrhage, vomiting or dehydration is satisfactorily accomplished by the oral or rectal administration of magnesium sulphate. The rapid reduction of intercranial tension, in acute intercranial traumas unassociated with shock, is best accomplished by the intravenous administration of hypertonic Ringer's solution. Glucose may be given later to maintain the lowered intracranial pressure. Hypertonic glucose solution administered intravenously is indicated when acute intracranial pressure is associated with shock or hemorrhage, and in the less acute cases when complicated by dehydration, nausea and vomiting. Glucose has the following advantages over any of the salt solutions: prolonged action, no terminal rise in pressure, nontoxicity, nondehydration, increased blood volume in shock, and the control of acidosis.

R

Ivy Poisoning

The problem that has been studied by G. L. Krause and F. D. Weidman, Philadelphia (*Journal A.M.A.*, June 27, 1925) has been that of the preventive phase of ivy poisoning and not of the cure of the already established disease. Therapeutics was the second phase of their work. The work done by the authors confirms that: The discharge from the lesion does not disseminate the disease; the virus itself must come in contact with the part. Susceptible individuals may contract ivy poisoning at any time of the year, provided the juice of the plant comes in contact with the skin. As new findings they report that: Repeated attacks tend to shorten all the stages of subsequent attacks. Local immunity is not developed by repeated attacks of ivy poisoning. There is such a thing as absolute (and probably permanent) immunity against ivy poisoning. In their series, two thirds of the men who believed themselves immune were not

immune. In 45 per cent of the susceptibles it was necessary that some such defect in the epidermis, as scratches, should be present before a dermatitis would develop. It appears that all of the commoner laboratory animals are immune to this virus. Pruritus ani, transient, appeared in the majority of those receiving preventive treatment; in two subjects, hemorrhoids were aggravated. The pain at the sites of intramuscular injections outweighs the danger of future attacks of ivy poisoning such as are only suppositious in the commoner walks of life. In their series of sufficiently controlled subjects, the preventive system of treatment of Strickler did not prevent; it is possible that the curative value of this system is likewise scant or nil, and that the beneficial results which have been reported are depended on and ascribable to the variable susceptibility of different individuals and the varying intensity of the irritant as applied at different times.

R

Two Primary Tumors of Gasserian Ganglion

Ethel G. Russell, Philadelphia (*Journal A.M.A.*, Feb. 7, 1925), reports two cases of endothelioma of the ganglion. The tumors were removed by operation. Both of these cases showed early involvement, and one did not permit differential diagnosis from trigeminal neuralgia. While the immediate results in both cases were relief of pain, the ultimate prognosis is not hopeful. Recurrence is the rule rather than the exception, and often the pain persists even after removal of the tumor. The theories that have been advanced in explanation of this phenomenon include: (1) the extension of the tumor into the stump of the fifth nerve, and (2) the development of a neurosis of functional origin as a result of the previous intense suffering. In 25 per cent, of the cases, the lesion is an endothelioma, and, curiously enough, the left side is affected in 60 per cent of the cases. Marchand has described in greater detail than any other observer the structure of these endotheliomas. Scattered through a reticulum of connective tissue fibrils are round epithelial cells with a clear homogeneous cytoplasm. At times there is acinous formation, comparable to the lining capsule of the ganglion and also to the sheath of Schwann. This might indicate that these tumors are an undifferentiated stage of ganglion anlage; if so, "neurozytoma" would be an appropriate term for them.

THE JOURNAL

of the

Kansas Medical Society

W. E. McVEY, M.D. - - Editor

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IMPROVED CONDITIONS—IMPROVED METHODS

Progress in medicine has been very rapid. The accumulated knowledge has out grown the individual. The recognition of this fact gave birth to the first specialists. The successful outcome of the early ventures in specialism had something to do with the present popularity of limited practice, but the general recognition of man's limitations fixed the permanency of that kind of practice.

Specialists have added considerable to the store of medical knowledge, each in his own field, so that at this time a competent general practitioner, such as once existed, is now an impossibility. There is no such thing, if by that term is meant one who is competent to diagnose and treat all the ills of the body.

It is certainly not the purpose of the present medical college curriculum to produce general practitioners of that type, nor does any existing need for them justify the curtailment of the regular medical course either in time consumed or volume of work required. Whatever demand there may be for poorly equipped physicians is now amply supplied by the various substitutes for doctors.

The trouble is not with the present sys-

tem of medical education nor with the type of men graduated, but failure on the part of the medical profession to adapt its business methods to the changed conditions.

It is no longer possible for an individual physician working by himself to give the people efficient service without more of an outlay for professional and technical assistance and office equipment than his business will justify, nor could any but the wealthy members of his clientele afford to pay the fees he would be compelled to charge. Under the present system when a patient must be sent to the laboratories for tests and to various specialists for examination the expense is much greater than the average income will bear. In other words under the present system of practice the cost of efficient service is too high and the returns to the physician too low.

Other plans must ultimately be adopted and at the present time it appears likely that these will be inaugurated by those outside the medical profession.

A pay clinic was established by Cornell University Medical College in 1921. A report has just been issued which should offer some valuable suggestions to the medical profession. The report is prepared by the executive secretary of the Committee on Dispensary Development of the United Hospital Fund of New York City. There are twelve members of this committee not including its executive secretary. Of these members only five are doctors of medicine.

If this committee had been made up entirely of doctors of medicine it is doubtful if the plans would have reached maturity; it is doubtful if medical men alone would have had the courage to attempt the establishment of such a clinic or if they could have withstood the criticism and the ostracism such a movement would have occasioned. There was much criticism from the medical profession but this was finally largely overcome and we venture that it was the lay influence rather than the medical that succeeded in doing so.

It may be interesting to quote from this report a paragraph that suggests the situa-

tion which the clinic was established to meet:

"It has been recognized for some years that in time of sickness persons of moderate means were less well provided with adequate medical services than either the well-to-do or the poor. But the action of the Medical College of Cornell University in the autumn of 1921 in establishing an agency with the particular purpose of providing medical service for persons of moderate means was a practical, not an academic evidence of belief in such a need, and at the same time was a means of testing its reality and gauging its extent. In the spring of 1921 it was estimated that within the City of New York there were not less than two million persons who, while self-supporting, were not able to purchase sufficient medical service at the usual private rates to care properly for more than minor or inexpensive sickness. Information secured since that time indicates that the number of the city's population falling into this group is not less than the estimate of 1921."

The services of this clinic are offered only to those who are able to pay. In the beginning each patient was charged one dollar with additional fees for laboratory tests, medicines and appliances. This fee was later raised to one dollar and fifty cents.

Over a thousand persons applied for treatment the opening day, but during the second year the business had settled down to an average of 450 patients a day. In all 55,000 different persons have been treated since the opening in the autumn of 1921. It was estimated from the records that 59% of these cases had been previously under the care of a private doctor.

It is well here to remember that these are not poor people. The report says in regard to the financial status of these people:

"The characteristic Cornell patient is a member of a family of two or three members, with an income of about \$2,400 per year. The average wage of a Cornell patient is about \$1,800 per year, there being on the average somewhat more than one wage earner per family."

It is further stated that two-thirds of the families of New York have incomes of under \$2,500 per year.

Cornell, with the aid of the Committee of Dispensary Development has successfully established a pay clinic in competition with a majority of the practitioners in New York for the patronage of over 2,000,000 of its self supporting citizens. A formidable competition which offers a superior kind of service with fees below the minimum charge of private practitioners. As a pay clinic it has proven a success, both in point of service and as a financial investment. There was a considerable deficit at the end of the first year but the deficit for the next year was very much less and during the nine months period ending March 31, 1925, the income exceeded the current expense by nearly \$6,000. Approximately \$90,000 is paid to physicians connected with the clinic. Some of these receive regular salaries others are paid by the session (2½ hours) from \$5.00 to \$7.00 each. It is estimated that the different groups are paid for the time of service on the basis of annual salaries of from \$4,000 to \$10,000.

The author of the report of the Cornell clinic does not favor the establishment of clinics of this kind to be operated along commercial lines. He thinks they should be public enterprises, but conducted on a self supporting basis. There seems to be a consensus of opinion among all the lay organizations whose activities are centered in public health that sickness is a calamity the burden of which should fall mostly upon the medical profession. Their plans for relief usually contemplate the donation, or partial donation of the doctors services and the supply of other requirements at cost. The Cornell clinic has demonstrated that the department store plan adapted to the practice of medicine makes a strong appeal to the public, and the item of cost is a secondary matter. It is quite probable that the clinic could have charged the same fee for office calls as private practitioners and succeeded just as well. In the matter of fees the most important feature is the reduced cost for laboratory tests, x-ray examinations, etc.

It has been demonstrated by other or-

ganizations that the plan can be successfully carried out on a commercial basis. To what extent such a plan could profitably be pursued in less populous sections of the country must depend upon the willingness and ability of the doctors to co-operate. With good roads and automobiles the doctor is as accessible to the family twenty miles away as he was twenty-five years ago to the family only five miles away. If the physicians in an area forty miles square would equip themselves for special lines of work and form a clinic group with the necessary equipment at the most centrally located town, where they would meet at regular times, for the examination of complex and difficult cases, the improved efficiency of the group would make a strong appeal to the community and the service could be rendered profitably at a cost very much below that under the present conditions.

ANTI NARCOTIC EDUCATION

According to information received it is proposed by Captain Hobson, president of the International Narcotic Education Association, to hold a world conference on Narcotic Education at Philadelphia next summer. Congress will be asked to provide funds for the participation of this government in the conference. In the meantime a nation wide campaign of education is being promoted by the Association, and the press, the pulpit, the motion pictures, the radio, educational officials and organizations of all kinds are invited to participate.

Perhaps no official estimate of the extent of addiction to narcotic drugs nearly approximates the actual situation. In 1919 the Treasury Department estimated that there were 1,000,000 drug addicts in the United States and that the number was increasing. In New York it is estimated there are 200,000 so called "underworld addicts." It has also been estimated that from 40% to 60% of criminals are drug addicts. These investigations have also shown that heroin is the favorite drug among the criminal classes and that with the increase in

the use of heroin crime has also increased. There can be no question about the seriousness of the situation, nor is there any doubt that it is growing worse.

There is some ground for the claims sometimes made that the anti-narcotic laws have increased the number of criminals and the amount of crime. Eliminating his source of supply does not relieve the drug addict of his need for his accustomed dose. The demand remained and with no legitimate supply the development of illicit traffic in narcotics was to be expected. The more interference with this traffic and the stricter the laws against it the more desperate the addicts become and the more daring and more lawless the traffickers.

There is some question as to the nature of the relationship between the consumption of opiates and crime. Or rather it is doubtful if the effect of opium on the individual tends to increase his criminal inclinations. It is claimed by some of the most careful students that it does not.

The most important consideration in reference to this campaign of education has to do with the possible results of such a movement. It is hardly conceivable that the drug addicts themselves can be reached by such methods or that any considerable number of them could be benefited thereby. Something of the results would no doubt be manifested in the next generation but in the meantime the present situation is not likely to be improved but will probably be aggravated by a continuation of the present methods of dealing with drug addicts.

Drug addiction must be regarded as a disease instead of a crime before any very marked improvement in the situation can be expected. As far as immediate results are concerned the money that will be expended in this educational campaign can be more economically and humanely utilized in the restoration to health and normalcy of these 1,000,000 addicts that are said to exist. Hospitalization and proper treatment, compulsory if necessary, will accomplish more than penalization and imprisonment.

ADVERTISING OR EDUCATING?

Much of the misinformation that the people have about disease has been obtained from the medical profession. Those who are in a position to educate the people and who, on account of the position occupied, are regarded as authorities, are sometimes responsible for statements that are not borne out by such facts as are known.

In a recent number of the Health News published by the New York State Department of Health there appeared an article under the title, "Two Milk-borne Scarlet Fever Outbreaks in Binghampton a Week Apart." Under this title the following account of these outbreaks is given: "Two outbreaks of scarlet fever recently occurred in Binghampton approximately a week apart. According to a report of the investigation made by District State Health Officer Conway, these outbreaks were in widely separated parts of the city and appeared to be due to the milk supplies of two entirely separate dairies selling raw milk.

"The first outbreak consisted of twenty-five primary cases among users of milk from one dairy. No source of the infection could be found in connection with this supply. It is interesting to note that all cows in the herd of this dairy were tuberculin tested. This illustrates the fact that, unlike pasteurization, the tuberculin test offers no guarantee against infections other than tuberculosis.

"The second outbreak comprised nineteen primary cases. It was found that a boy of fifteen who did the milking on the implicated farm was ill with a sore throat a few days before the outbreak took place. According to the local health officer two other children in the family had sore throat followed by desquamation of the hands and feet. Dr. Conway is of the opinion that these cases were undoubtedly scarlet fever, although no physician was called at the time of the illness."

The evidence certainly does not justify the statement made in the title of the article. Granting that the possibility of spreading scarlet fever in this manner may

be real, there was no evidence in either of the outbreaks that justified a definite conclusion. Entirely too many of our theories of disease have been based upon such flimsy clinical evidence as that.

SAYS WHICH—SAYS WHO

The wise sayings of a fool are ignored. The foolish statements of a wise man are cherished. It matters less what is said than who says it.

A doctor, for instance, may have a state wide, or nation wide reputation; he may be preeminent in some particular field or practice. The pearls of wisdom dropped from his mouth are gobbled up by his admirers like raindrops by the thirsty travelers on the parched and dusty plains.

The raindrops fall from the clouds, but have been gathered from the Earth upon which again they fall. So the pearls of wisdom fall from the mouths of great men, but they have been gathered from the masses upon whom they are again so graciously conferred.

Facts in medicine are discovered by the plodders, the tireless observers, the patient inquisitive diagnosticians, the men who are insatiable question marks in medicine—silent men as a rule, but persistent seekers for knowledge.

It is from these men that the wise men gather their pearls. Truly, they are sorted and assembled and perhaps, like the pearls that glow upon a fair lady's neck, these pearls absorb vitality and personality from him they adorn. So that when they are passed on they bear his trade mark.

 R
 CHIPS

The automobile foot is in evidence.

Psyosophy is the blanket word for all kinds of ignorance.

Drekapotheke is the name for a druggist who specializes in preparing excrementitious therapeutic products for the medical fraternity.

The *phage* is said to be the smallest and most powerful of all microbes. It is used to kill the germs of pneumonia, typhoid, diphtheria, dysentery and anthrax. They

are strong for their size—according to the publicity agents.

A friend who ought to know, having had no experience in this line, says that to sober a drunk quickly, force inhalations of a gas mixture composed of five per cent of carbon dioxide and ninety-five per cent of oxygen into the lungs.

Energy Index is a term applied by Barach to the amount of energy expended by the cardio-vascular system in one minute, and is computed by multiplying the sum of the systolic and diastolic pressures by the pulse rate. Grover states that the normal range of the energy index is between 13,000 and 20,000; that over 20,000 is not consistent with safety to the vascular system, and that under 13,000 indicates general cardio-vascular weakness.

Every one agrees that it is impossible to state a formula of normal blood pressure, but no one seems to hesitate to declare what should be regarded as abnormal. Some authors regard a systolic b.p. above 140 as abnormal, regardless of age, sex, height and weight. There is more consensus of opinion about the diastolic b.p. however, and a variation of more than 10 mm either above or below 80 usually occasions some suspicion of pathology.

To have been so long neglected, and for an organ so comparatively small, the importance of the tonsil has assumed mammoth proportions in the human economy. Now comes one who says the structure of the tonsil and the appendix is identical and that microscopic sections cannot be differentiated one from the other. Admitting that the exact function of these organs is unknown, he insists, however, that Nature is not a blunderer and that their removal is followed by changes in the system that are notable.

The above is just a preliminary argument to convince us of the importance of his discovery: Tonsillitis is an expression of acidosis. There are four causes of acidosis; too high a rate of protein in the diet, the use of dealkalinized or demineralized food, the concurrent use of protein or acid, the retention of the colon contents too long. Just control these four factors and the source of tonsillitis and appendicitis will be eradicated. See?

The Academy of Medicine of Toledo and Lucas County is a society of 308 members. Of these 245 are active members and

pay \$35.00 annual dues, 53 are junior members—those who have practiced less than one year—who pay \$15.00 and 10 are privileged members who pay only \$10.00. This society has recently completed a building for its headquarters. It has some office rooms, a library, a small auditorium and a large one that will seat 600 people.

The State Medical Association of Texas increased the annual dues from \$5.00 to \$15.00. A fund has thus been raised which enables the society to send public speakers all over the state. Reports indicate encouraging results.

Chili has enacted some new laws concerning social hygiene that should prove effective. An educational campaign is provided for and instruction on the subject in the public schools is compulsory. The government controls the manufacture and distribution of remedies. Only practitioners who hold special licenses are permitted to treat venereal diseases. Those infected are treated by the government free of charge and treatment is compulsory. All cases must be reported. Prostitutes are examined and if found diseased are confined in a hospital until the period of contagion has passed. Those who refuse treatment are confined in a reformatory.

Routine blood sugar tests in cases of diabetes under insulin treatment have brought out some unexpected findings. Attention has been called to a persistent high blood sugar content in patients as persistently free from glycosuria. In the *Journal A. M. A.*, June 13, Major and Davis report a series of cases in some of whom the blood sugar values were over 400 and the urine sugar free. Attempts to reduce the blood sugar with increased doses of insulin resulted in insulin shock. Their conclusions were that the estimation of the urinary sugar was a safer guide to therapy than blood sugar determinations.

—R—
Invoicing

BY THE PRODIGAL

The medical profession is taking an inventory of itself. It is a healthy progressive sign and good business. By so doing it will learn its true status as a going concern and the attitude of the laity toward it. Such bookkeeping will show its assets and its liabilities, to itself, and to human kind. By such means it will learn why the public is not more interested in its own welfare, from the medical point of view,

as shown by the laws on the statute books and laxity in their enforcement.

Self examination, without prejudice, is a sign of growth. It shows self initiative; a realization that there is, at least a benign pathologic disturbing element in the body politic, and a remedy is sought. The defection, from regular medicine, as shown by so many denominations or sucker branches—off shoots, from the main body, is sapping its vitality, or at any rate is retarding the growth of regular medicine. It weakens by diffusion. By this inventory it may be learned what and where the effervescing elements are in the body, and intelligent, scientific treatment be given, and the cause removed or antidoted.

One of the causes of the strain, even to the breaking point, or explosion, is the excess of literary and medical baggage the profession is trying to carry. A doctor needs only the professional knowledge he can use in his business each day. The knowledge he cannot use is excess baggage and a hindrance to him.

He cannot carry, let alone use, the baggage and its contents outlined in the curriculum of a "Class A Medical College" of the present day. The baggage must be cut down and the excess baggage and its contents thrown aside, the load lightened and the capacity of the human mind taken into account, to enable it to deliver the goods. Another cause of the loss of prestige of regular medicine may be likened to the loss of prestige of government, and a new remedy or ideal found for it to continue to function normally. The prestige of government, in the past, depended upon its supposed connection with divinity—"The Powers that be, are ordained of God."

The prestige of medicine in mediaeval days, and shadowing the present, depended upon the ability of the profession to head off or squelch the other fellow, the Devil. Voodooism, incantation, miracle and the efficacy of certain drugs, known to the elect, (self elect) constituted, in the main, the armamentarium of the medical man. To regain this prestige, in medicine as well as in government, a new goal must be set—shrine or Mecca found for the human family to worship; and it is up to the regular medical professional to create or establish a prestige to continue to function normally.

Since "The Powers that be" have wandered so far astray and the entity of evil has been unhorsed by the more intellectual part of mankind, a substitute has been

found for everlasting prestige in medicine, in science. Demonstrated facts are the shibboleth of regular medicine and accepted to warrant practice. Medicine is not an exact science but enough scientific facts are now known in medicine and surgery to put its name in the Book of Remembrance and to perpetuate itself. Hence the medical man of today, when called to see a patient, does not prescribe a drug for a specific disease unless he knows what the cause of the disease is.

If the patient is suffering, the doctor relieves the pain, gives a placebo and gets time to study, ferret out the cause and treat the patient intelligently and scientifically. Giving a placebo is intelligent treatment, when the doctor cannot diagnose the cause satisfactorily to himself, although the treatment may not be scientific.

Moral: The present invoicing of regular medical education and practice will take into account the potentiality of the human mind; the worth-whileness of medical facts, on hand, and junk all useless, superfluous, excess baggage. (A) And since the prestige of medicine no more depends upon the malevolence of his Satanic Majesty as the cause of disease; and since truth, only, can satisfy the intelligent mind, the slogan for future prestige of regular medicine, as a substitute for voodooism, superstition, and his Satanic Majesty as a cause of disease is—Science.

DEATHS

Dr. Robert A. Stewart of Russell, Kansas, died March 28, at a hospital in Hays following an operation. Dr. Stewart was graduated from the Kansas Medical College at Topeka in 1899. He was a member of the Kansas Medical Society.

Dr. William A. Minnick of Wichita, Kansas, died, in April, of pneumonia and cerebral hemorrhage. Dr. Minnick was graduated from the Kentucky School of Medicine, Louisville, in 1881. He was a member of the Kansas Medical Society.

Dr. Jacob G. Wortman of Mound City, Kansas, died April 26, at a hospital in Fort Scott, of gangrenous appendicitis at 71 years of age. He graduated from the Kansas City (Mo.) Medical College in 1900.

Dr. Frank Albert McDonald of Concordia, Kansas, died May 8, of uremia at 64 years of age. Dr. McDonald graduated from the Bellevue Hospital Medical College, New York in 1887. He was a past

president of the Cloud County Medical Society.

Dr. Henry Wimer of Atwood, Kansas, died May 5 at Hastings, Nebraska, of cerebral hemorrhage at 60 years of age. He graduated from the Electric Medical Institute, Cincinnati, in 1894.

Dr. Arthur F. Higgins, Emporia, Kansas, died April 22. He was graduated from the Hahneman Medical College and Hospital of Chicago in 1884.

Dr. J. F. Hughes of Larned died June 15, at the Mayos, Rochester, Minn. Dr. Hughes had been for the past five years head of the Larned State Hospital. For several years before that time he was assistant at the Osawatomie Hospital. Dr. Hughes was born in 1875 at Antrim, Ohio. He graduated from the University Medical College, Kansas City, Mo., in 1905. He was formerly located at San Diego, Calif., Lyon County, Kan., and Osawatomie.

BOOKS

The Health-Care of the Baby, A Handbook for Mothers, Nurses, and Physicians. By Louis Fischer, M.D. 15th Edition, completely revised, rewritten, and reset. 12mo. Cloth. 267 pages. \$1, net. Funk & Wagnalls Company, New York.

This is a revised edition but it is completely rewritten and reset, and includes the latest developments in the management and feeding of infants—normal, premature, sick, and delicate. Dr. Fischer has compressed into a small volume a large mass of valuable, scientifically accurate information, presented in simple language so that any one who can read can understand what he says and can follow the directions which he gives.

Dyspepsia: Its Varieties and Treatment. By W. Soltan Fenwick, M.D., S. S. (London), Late Physician to the Evelina Hospital for Sick Children, London. Second Edition, Revised. Octavo of 515 pages, illustrated. Philadelphia and London. W. B. Saunders Company, 1925. Cloth, \$6.00 net.

After nearly fifteen years a second edition of this very comprehensive treatise on dyspepsia has appeared. The author has arranged the discussion of his subject to correspond with the different causative factors involved. After giving the varieties of dyspepsia and their differential diagnosis he takes up dyspepsia due to abnormalities of secretion and in the subsequent chapters, dyspepsia due to failure of muscular power of the stomach, that due to inflammation of the stomach, that due to disturbances of nervous mechanism, that due to displacement of the stomach, that

due to foreign bodies, etc., dyspepsia of infancy and old age, dyspepsia dependent upon diseases of other organs, and finally intestinal indigestion.

Diet In Health and Disease. By Julius Friedenwald, M.D., Professor of Gastro-Enterology in the University of Maryland School of Medicine, Baltimore; and John Ruhrah, M.D., Professor of Diseases of Children in the University of Maryland, Baltimore. Sixth edition, thoroughly revised. Octavo of 987 pages. Philadelphia and London: W. B. Saunders Company, 1925. Cloth, \$8.00 net.

This is one of the outstanding authoritative works on dietetics and has been largely revised and much of it rewritten. The author suggests that from an entirely empiric branch of knowledge dietetics has become at least half scientific. The application of both chemical and biological methods to the study of the subject has been responsible for marvelous results.

The author believes that whatever relationship there may be if any between diet and such diseases as cancer, skin diseases, arthritis and others, will be shown in the near future.

Diseases of Children for Nurses. Including Pediatric Nursing, Infant Feeding, Therapeutic Measures Employed in Childhood, Treatment for Emergencies, Prophylaxis and Hygiene. By Robert S. McCombs, M.D., Associate in Medicine at the Philadelphia Polyclinic; Instructor of Nurses at the Children's Hospital of Philadelphia. Fifth edition, thoroughly revised. Octavo of 581 pages, illustrated. Philadelphia and London. W. B. Saunders Company, 1925. Cloth, \$2.75 net.

This textbook for nurses has been pretty thoroughly revised. Much of it has been rewritten and considerable material of importance has been added. Several new illustrations have been introduced and the text brought up to date as fully as possible.

Personal Hygiene Applied, by Jesse Feiring Williams, M.D. Professor of Physical Education, Teachers College, Columbia University, New York City. Second edition revised. 12mo of 414 pages, illustrated. Philadelphia and London. W. B. Saunders Company, 1925. Cloth, \$2.00 net.

Written essentially for the lay public this little book can be read profitably by physicians, though they will perhaps not agree in every point with the author. Just at this time any sort of literature that essays instruction in health should find a ready market. This seems to meet the requirements fairly well, some very excellent advice is offered and the chapter on sex hygiene is sufficiently evasive to merit the approved of the most prudish critics.

Medical and Surgical Report of the Roosevelt Hospital, New York, (second series 1925). Published by Paul B. Hoeber, Inc., New York City. Price \$5.00.

This report contains articles written by members of the staff expressly for the purpose and reprints of articles that have been published in various journals during the year. Particularly noticeable is a series of articles on partial colectomy by Charles N. Dowd and a series of papers by Rolfe Floyd. The articles are excellently illustrated.

Wells Compend of Gynecology revised by William Benson Harrer, M.D., Instructor in Obstetrics in the University of Pennsylvania, etc. Published by P. Blakeston Son & Co, Philadelphia. Price \$2.00.

This being the fifth edition of this compend one must admit there is sufficient demand to justify its publication. While the need for such abbreviated texts on such large and important subjects may be questioned, this particular one seems to have some merit and will perhaps very excellently serve the purpose for which it is intended.

Clinical Features of Heart Disease, an interpretation of the mechanics of diagnosis for practitioners, by Leroy Crummer, M.D., Professor of Medicine, University of Nebraska. Published by Paul B. Hoeber, Inc., New York. Price \$3.00.

In the first place this book is very easy to read. The author has what is sometimes described as a facile pen. The subject is discussed according to the more recent ideas of cardiac disease and is not so technical as to prevent its being easily understood. The author lays much stress upon the history in cardiac cases and also upon the valuable information that may be gained by inspection. It will appeal to the practitioner who wishes to keep up to date but is likely to be impatient with the very technical treatises on this subject.

Ophthalmic Plastic Surgery, Newer Methods of, by Edmund B. Spaeth, M.D., Chief, Eye Clinic, Walter Reed U. S. Army Hospital, Washington, D. C., etc. Published by P. Blakistons Son & Co., Philadelphia. Price \$5.00.

This is a very complete work on the subject of plastic surgery of the eye, giving in careful detail the principles involved, and impresses the need for study of each individual case before attempting an operation. The various steps of many operations are described and illustrated. In general the book shows the marked advances that have been made in this department of surgery.

Simplified Nursing, by Florence Dakin, R.N. Published by J. B. Lippincott Company, Philadelphia.

This book is prepared for the instruction of wives and mothers in the proper

methods to be used in the care of the sick. It tells about ventilation, bed making, disinfection and sterilization, bathing, etc. It should be a valuable book to have in most households.

The Medical Clinics of North America. (Issued Serially) one number every other month. Volume VIII, Number VI, (Boston Number—May, 1925.) Octavo of 278 pages and 47 illustrations and complete index to Volume VI. Per clinic year (July 1924 to May 1925.) Paper \$12.00; Cloth \$16.00; Philadelphia and London: W. B. Saunders Company.

The Boston number of the clinics contains some very instructive material. The first two articles deal with the heart, one by Morse and one by Locke. Pratt's clinic on gout is instructive. Lee discusses the subject of vasomotor rhinitis and hypothyroidism. Davidson has a clinic on the end results of the medical treatment of peptic ulcer. McClure has an interesting article on the diagnosis of peptic ulcer and cholecystitis. Joslin, Root and White present a very interesting discussion on diabetic coma and its treatment.

Physical Diagnosis of Diseases of the Chest. By Joseph H. Pratt, A.M., M.D., and George E. Bushnell, Ph.D., M.D. Octavo of 522 pages with 166 illustrations. Philadelphia and London: W. B. Saunders Company, 1925. Cloth, \$5.00 net.

The author brings out a very important necessity in the accurate interpretation of physical findings in the examination of the chest, that is familiarity with the finding in the normal chest. He has described those ordinarily observed and has included some not usually mentioned. The work as a whole is a very thorough exposition of the subject giving in detail the various methods available for examination of the chest and the proper interpretation of the signs discovered.

—R— MEDICAL SCHOOL NOTES

At the University of Kansas commencement on June 10, thirty-two graduates received the Degree of Doctor of Medicine. Ten nurses received the certificate of Nurses Training. Of the thirty-two who received the M.D. Degree, all but three are residents of Kansas. The other states represented are Missouri, Arizona, and New Mexico. Following is a list of the graduates with their interne appointments. Two of the graduates have not received interne appointments, but expect to start their service some time the first of the year. These are Dr. Harold M. Roberts, who is spending the summer abroad, and Dr. Harry W.

Seiger, who will spend the summer in clinics in Kansas City.

Bartel, Ferdinand G., Wesley Hospital, Wichita, Kansas.

Bennett, Charles A., Bell Memorial Hospital, Kansas City, Kansas.

Blew, Clarence L., Montreal General Hospital, Montreal, Canada.

Dewolf, Henry F., Cleveland City Hospital, Cleveland, Ohio.

Dillon, Tony G., Bell Memorial Hospital, Kansas City, Kansas.

Ford, W. Virgil, Trinity Lutheran Hospital, Kansas City, Missouri.

Harrison, Alvie, Louisville City Hospital, Louisville, Kentucky.

Hart, Crozier S., Bell Memorial Hospital, Kansas City, Kansas.

Henry, Schubert D., Saint Francis Hospital, Wichita, Kansas.

Hobbs, Russell E., Kansas City General Hospital, Kansas City, Missouri.

Hume, Harold C., Wichita City Hospital, Wichita, Kansas.

Johnson, Vansel S., Fifth Avenue Hospital, New York City.

Knapp, Leslie E., Saint Francis Hospital, Wichita, Kansas.

Morris, Benjamin, Montreal General Hospital, Montreal, Canada.

Newton, Hiram D., Bell Memorial Hospital, Kansas City, Kansas.

Olsen, Andrew A., Mount Sinai Hospital, Cleveland, Ohio.

Palmer, Harold W., Cleveland City Hospital, Cleveland, Ohio.

Peete, Don Carlos, Bell Memorial Hospital, Kansas City, Kansas.

Pitman, Will D., Saint Joseph Hospital, Concordia, Kansas.

Ricker, Sam F., Iowa Lutheran Hospital, Des Moines, Iowa.

Rigdon, Jonathan, Saint Margarets' Hospital, Kansas City, Kansas.

Roach, William F., Cincinnati City Hospital, Cincinnati, Ohio.

Rollow, Herbert, Saint Francis Hospital, Wichita, Kansas.

Ryan, Clarence J., Seaside Hospital, Long Beach, California.

Saylor, Edward L., Western Pennsylvania Hospital, Pittsburgh, Pennsylvania.

Weaver, James, Fifth Avenue Hospital, New York City.

Wiebe, Dietrich V., Kansas City General Hospital, Kansas City, Missouri.

Winkler, John J., Cleveland City Hospital, Cleveland, Ohio.

The nurses who received Degrees, are as follows: Miss Dorothea Camp, Miss

Maurine Whipple, Miss Hazel Coghill, Miss Neva Ingrass, Miss Annie Turner, Miss Marjorie Davison, Miss Dorothy Davison, Miss Alice Coldiron, Miss Mabel Unruh, Mrs. Kathryn Bassford.

Dr. R. L. Haden has been elected a member of the American Society for Clinical Investigation.

At the recent meeting in Atlantic City, Dr. Frank C. Neff was elected President of the American Association of Teachers of Children's Diseases. Their next meeting will be held in Dallas, Texas, the day preceding the meeting of the American Medical Association.

Dr. N. F. Ockerblad read a paper before the last meeting of the American Urological Association in St. Louis. He reported observations on the creatinin kidney function test.

Dr. R. H. Major and Dr. R. L. Haden have been elected members of the American Climatological and Clinical Association.

Dr. E. G. Padfield of Salina, Kansas, recently spent several days attending clinics at the Medical School.

Dr. R. M. Isenberger has been appointed associate professor in the Department of Physiology and Pharmacology. Dr. Isenberger attended the University of Kansas until his junior year, and then transferred to the Western Reserve Medical School, where he finished.

Dr. R. M. Urie of Parsons, and Dr. W. E. McKinley of McDonald visited the Medical School recently.

Dr. T. G. Orr, and Dr. R. L. Haden read a paper at the meeting of the American Medical Association before the section on Obstetrics, Gynecology and Abdominal Surgery. The title of the paper was "Reducing the Surgical Risk in Intestinal Obstruction." During the session a paper was also presented before the American and Canadian Association of Anaesthetists on "Preoperative Surgical Preparation."

—R—

An American Health Congress

In order to give health workers from every part of the country a bird's-eye view of the public health movement in its broadest aspects, the National Health Council at 370 Seventh Avenue, New York City, has planned for an American Health Congress

to be held at Atlantic City during the week of May 17, 1926.

The leading authorities on each phase of the public health movement; such as tuberculosis, cancer, heart disease, blindness, social and mental hygiene, public health nursing, preventable diseases, and positive health education for both children and adults, will present the latest and most authoritative findings and programs for the solution of these problems.

Among the groups that will cooperate in the congress are the following members of the National Health Council:

American Child Health Association; American Heart Association; American Public Health Association; American Red Cross; American Social Hygiene Association; American Society for the Control of Cancer; Conference of State and Provincial Health Authorities of North America; National Committee for Mental Hygiene; National Committee for the Prevention of Blindness; National Organization for Public Health Nursing; National Tuberculosis Association; United States Children's Bureau; United States Public Health Service; Women's Foundation for Health.

In addition to these groups, it is anticipated that leading health associations of Canada, Mexico and elsewhere will cooperate in this congress.

The American Nurses Association, the National Organization for Public Health Nursing, and the National League of Nursing Education, will hold their regular biennial meeting during this same week at Atlantic City. The General Federation of Women's Clubs will meet directly after the congress.

Already well organized plans are under way. The Atlantic City convention authorities and the hotels will cooperate to the fullest extent. The Steel Pier has been engaged for headquarters and meetings will be held there and at the nearby hotels on the boardwalk. Part of the space on the Steel Pier will be used for commercial and educational exhibits. A strict censorship will be exercised, however, in order that the exhibits may conform with the high standards of such a meeting.

—R—

Zinc Stearate Dusting Powders for Infants

The second report of the Committee on Accidents from Zinc Stearate Dusting Powders appointed by the Board of Trustees of the American Medical Association has recently been published. Copies of this

report, with an appendix showing the opinions of thirty-four representative pediatricians on the therapeutic value of such powders, can be obtained on request. Address, Committee on Zinc Stearate Dusting Powders, American Medical Association, 535 North Dearborn Street, Chicago, Illinois, enclosing a self-addressed, stamped envelope.

There were reported to the Committee 131 accidents from the inspiration of zinc stearate dusting powders by infants. Twenty-eight of the victims died. The committee conferred with representatives of certain distributors concerning the dangers incident to the use of such powders on infants. Following a meeting held at the headquarters of the American Medical Association, these distributors agreed to cooperate by adopting self-closing containers for the powders they distribute and agreed that cautionary labels are desirable. Opinions were secured from thirty-four representative pediatricians concerning the therapeutic value of zinc stearate dusting powders. Thirty-one believe that such powders have no advantage over other dusting powders, that they constitute a hazard to infant life, and that their use should be discouraged.

—————R—————

Noted Chemists Will Give Aid to Hoover

The appointment of an advisory committee composed of outstanding members of the chemical industry to cooperate with the Department of Commerce has been announced by Secretary Hoover.

The purpose of this committee is to assist the chemical division of the department in mapping out a program of work which will be of the most practical and immediate benefit to the industry.

The membership of the committee, as announced by Secretary Hoover, includes Dr. Leo Bakeland, president, American Chemical Society and inventor of bakelite; Dr. A. S. Burdick, president of the Abbott Laboratories of Chicago, and formerly president of the American Drug Manufacturers' Association; Dr. H. E. Howe, editor of the Journal of Industrial and Engineering Chemistry; Dr. Charles H. Herty, president of the Synthetic Organic Chemical Manufacturers' Association; Henry Howard, chairman of the board of governors of the Manufacturing Chemists' Association; G. Ober, president of G. Ober & Sons, Baltimore, and past president of the National Fertilizer Association; E. C. Trigg, president of John Lucas & Co.,

Philadelphia, and president of the Agricultural Insecticide and Fungicide Association; A. Cressy Morrison, president of the Acetylene Gas Manufacturers' Association, and S. W. Wilder, secretary of the Manufacturing Chemists' Association.

R

Improved Method for Rabies Prevention

Time was, and not so very long ago, when a mad dog could terrorize a whole community; to be bitten by such an animal was not merely a death sentence, but a sentence to the most horrible of deaths. The resourcefulness and persistent energy of one man, a pioneer, has changed all this. Pasteur's method of preventing hydrophobia was indeed the dawning of a new day. Still, for many years it was necessary for the victims of mad-dog bites to be taken to "institutes" for treatment, and not only failure but injury from the treatment was possible.

A pioneer is most honored by those who catch his spirit and continue to go forward. The Pasteur method has been improved. "Institutes" are no longer necessary. Toxicity has been found to be no essential factor in the immunizing treatment, and Rabies Vaccine is now available that is incapable of injuring the patient, no matter what dose in the "course" is given first or last—all being alike. And, strange to say, this Vaccine has been demonstrated to confer a higher degree of immunity than the desiccated spinal cord originally used.

Our readers are referred to the advertisement in this issue entitled "The Prevention of Hydrophobia," and for more complete particulars to Parke, Davis & Co., Detroit, Mich., who have recently issued a free booklet on "Rabies Vaccine."

R

Amebic Abscess of the Liver

A case of amebic abscess of the liver complicated by subphrenic abscess is reported by Alexius McGlannan, Baltimore (*Journal A.M.A.*, June 27, 1925). A few of the important features of this case are: The danger of closed aspiration in suspected liver abscess. At the first operation, although nothing was obtained by aspiration, pus exuded from the liver when the needle was withdrawn. The difficulty of finding amebas in the pus: In spite of repeated examinations, these organisms were not found until the wall of the abscess was scraped on the twenty-fourth day after the operation; the prompt improvement after the general treatment by emetin and the local treatment by quinin solution was inaugurated,

and the final local use of emetin; in all, the patient was given 45 grains (2.9 gm.) of this drug; the value of the roentgen ray in distinguishing the subphrenic abscess from an empyema; the occurrence of this large amebic abscess in the liver of a patient who had never suffered from dysentery; the relative infrequency of subphrenic abscess as a complication of amebic abscess of the liver. Rogers found five such abscesses in eighty-five cases, as against thirty lung abscesses, six empyemas and three cases of suppurating pericarditis in the same series.

R

Ketogenic Diet in Epilepsy

Thirty-seven patients with essential epilepsy have been treated by M. G. Peterman, Rochester, Minn. (*Journal A.M.A.*, June 27, 1925), for periods of from three to thirty months by means of a high fat diet sufficiently restricted in carbohydrate and protein to produce ketosis. In two patients, no change was noted. One patient improved while under control, but was lost from observation. Three patients remained free from convulsions for from three to eight months, and were then not heard from. Twelve have improved, and nineteen have been free from attacks since the institution of this treatment. Thirty-two of the patients are still under observation. The general physical development and growth have been normal; the mental development has also been normal, and exceptionally good in certain cases. Resistance to infection seems to be in no way diminished by this form of treatment. Special attention is called to the fact that five of the patients have gone through severe infections, including scarlatina, pertussis and acute upper respiratory infections, with normal convalescence. The diets were not altered during the illness.

R

Focal Infection in Peptic Ulcer

The case histories of three patients, with animal protocols in which the peptic lesion was seemingly due to dental infection, and three in which the tonsils were the source of the infection, are reported by Russell L. Haden and Peter T. Bohan, Kansas City, Kan. (*Journal A.M.A.*, Feb. 7, 1925). Experimental proof of a causal relationship of chronic foci of infection to an existent peptic ulcer was obtained by the injection into animals of bacteria recovered from the focus. In twelve patients, dental infection was probably the primary cause. Forty-five rabbits were injected with cultures

from dental foci in three patients; 53 per cent. of the animals showed peptic lesions at necropsy. Only 7 per cent. of 535 control animals similarly injected had such lesions. Eleven rabbits were injected with cultures from the tonsils of five patients. Ten showed at necropsy lesions of the stomach or duodenum. The duodenal lesions observed experimentally are limited to the duodenal bulb, just as they are in man. The gastric lesions have a similar anatomic distribution. The evidence presented is good proof of the infections theory of peptic ulcer. The authors urge that patients with peptic ulcer should be thoroughly studied from standpoint of chronic infection, and all possible foci removed. Gastroduodenal malfunction without demonstrable focal lesions may likewise be a manifestation of focal infection.

—————R—————

Significance of Hemoptysic Onset in Tuberculosis

Two hundred and forty-five, or 8 per cent, of the total number of patients admitted to the Trudeau Sanatorium during a period of twelve years gave a history of hemoptysic onset, as reported by F. B. Trudeau, Saranac Lake, N. Y., (*Journal A.M.A.*, June 13, 1925). The sputum was positive in 119, or 48.57 per cent, of these cases, while tubercle bacilli had been found in the sputum of thirty more patients reported, before they entered the institution. Counting in these thirty cases, 149, or 60.81 per cent, of the 245 cases had positive sputum. In 171, or 69.83 per cent, of this series of hemoptysic onset cases, a confirmatory diagnosis was made in the roentgen-ray laboratory. Rales usually moderately coarse in character, situated in the upper half of either chest, and not clearing after cough, were present in 196, or 80 per cent, of the cases of this series. Ten, or 4.08 per cent, had had at some time a pluri-sy with effusion which could not be explained by any cause other than tuberculosis. In following these 245 patients from one to twelve years after leaving the sanatorium and classifying them under the headings of "well," meaning well and working for at least two years, "living" meaning either that they are still continuing their treatment or else that nothing more is known about them other than the fact that they are still living, "dead," and "unknown," it was learned that 114 are well; sixty-three are living; forty-seven are dead, and twenty-one were not heard from. The

prognosis in this type of case is no better or worse than in any other mode of onset of this disease.

—————R—————

Treatment of Gastric Ulcer by the Method of Duodenal Alimentation

In the treatment of gastric or duodenal ulcer by means of prolonged duodenal alimentation, A. L. Garbat, New York (*Journal A.M.A.*, June 27, 1925), says that stress should not be laid entirely on the exclusion of food from the stomach. Great importance is attributed to the frequent and concomitant administration of antacids or alkalis by mouth before each duodenal feeding, in order to neutralize or prevent the gastric secretion which is almost regularly associated with the duodenal alimentation. The two tube method has shown that a reflow of duodenal feeding into the stomach occurs more frequently than is usually believed; this occurs with improper position of the tube, which cannot always be recognized, or with a patent pylorus of the stomach. Antacid therapy will help to minimize the disadvantages resulting from such regurgitation.

—————R—————

As the result of experiments by Duncan C. Walton, Edgewood, Md. (*Journal A.M.A.*, May 23, 1925), a 1 per cent copper sulphate solution is recommended as a treatment for white phosphorus burns. Whenever a phosphorus burn is received, a large sponge of absorbent cotton should be saturated with a 1 per cent copper sulphate solution, and applied to the burning phosphorus. Within two or three minutes, it will be possible to remove the sponge. The copper-coated phosphorus should then be removed by forceps or by irrigation, and the case then treated like any other burn.

—————R—————

Physical Fitness for Orphans

In fourteen institutions for the care of orphans, ranging in membership from fifty to 300 children, it was found by William R. P. Emerson, Boston (*Journal A.M.A.*, May 2, 1925), that from 30 to 50 per cent were 7 per cent or more underweight for height, and from 50 to 67 per cent were under average weight for height. An application of the nutrition program demonstrated that within periods of from three to twelve months it was possible practically to eliminate underweight from the members of this group and bring the children into a state of normal physical fitness.

Roseola of the Conjunctiva

A subacute exanthematous conjunctivitis, peculiar to secondary syphilis occurred in three cases reported by Samuel Morse, New York (*Journal A.M.A.*, April 25, 1925). These patients never knew or were informed of a syphilitic infection, and had no other evidences of it. The history given was that the inflamed eyes would not improve under the ordinary treatment for conjunctivitis, as known.

Some Truths About Alcohol

Any one who attempts to arrive at an unbiased conclusion regarding the physiologic action of moderate amounts of alcohol on the human body realizes promptly that the decisive authentic information on the subject is surprisingly meager. There is no dispute about the ill effect of excessive indulgence in alcohol on individual and national efficiency; the habitual drunkard is a menace alike to himself and to the society that tolerates him. Yet many persons throughout the world, to whom the designation of drunkard could certainly not be applied with propriety, use alcoholic beverages moderately and secure therefrom not a little comfort and pleasure. It is a debatable question whether or not the enjoyment of the social glass must be prescribed because a large class misuse alcohol. The moderate users are frequently represented as those who "use" alcohol, as distinguished from those who "misuse" alcohol.

Physicians cannot avoid a consideration of the alcohol problem. It not only confronts them as it does every thinking person, but often is actually "thrust" on them by the exigencies of their daily routine. Probably the most debated feature centers in the inquiry as to whether alcohol can in any sense be regarded as a food. This is a question that demands a defensible answer regardless of the inquirer's personal habits, social proclivities or political convictions. Such a decision cannot be formulated on the basis of offhand impressions, hearsay evidence or subjective reasoning. It demands and deserves scientific analysis. Consequently, many persons will be interested in the statement of a physiologist having unusual qualifications for arriving at a conclusion when he asserts at length that the experimental evidence about the debated food value of alcohol "is extensive and admits of no controversy." Among the clearly proved facts that further study is not likely to modify to any degree, F. G.

Benedict,¹ the director of the Boston Nutrition Laboratory of the Carnegie Institution of Washington, includes the observation that alcohol in not too large doses—that is, about 72 gm. daily—is oxidized in the human body, and the energy that it furnishes in its oxidation may contribute to keeping the body warm, to replacing other nutrients in the diet, and possibly to the performance of muscular work. Seventy-two grams of alcohol, contributing 500 calories to the daily ration, are more completely burned than 500 calories supplied in the form of almost any other substance, with the possible exception of pure sugar. This has been demonstrated clearly by actual measurements of the heat output of man inside a respiration calorimeter, first, when subsisting on an ordinary diet, not containing alcohol, and then under exactly the same experimental conditions when 500 calories of fat or carbohydrate, or both, were replaced by 500 calories of alcohol.

This interpretation of alcohol as a food is, then, based on the demonstration that it can replace fat and carbohydrate in no small measure in the diet. Benedict hastens to remind us, however, that there are two functions of food that probably cannot be filled by alcohol. It is highly improbable that alcohol becomes a part of organized tissue, and its exact function in the energy required for the performance of muscular work is by no means clear. We know, Benedict adds, that fat, carbohydrate and protein do become a part of organized tissue, and do contribute to the performance of muscular work.

Viewed in the foregoing light, it might seem as if alcohol, being a food, should be physiologically permissible, if used in moderation. In attempting to meet the crux of the situation by determining the physiologically "permissible" amount for daily use, science has also recently indicated that something more than the danger of incipient intoxication must be taken into account. All the more recent psychologic tests with alcohol ingested even in small amounts agree in the demonstration of lessened organic efficiency resulting from the absorption of the substance.² From two to four hours after moderate doses of alcohol, practically all persons are affected with general depression of neuromuscular processes, lessened visual acuity, and lessened motor coordinations of eye and hand. Benedict argues that in assessing the value of alcoholic beverages for the use of mankind, the true scientist may not disregard the obvi-

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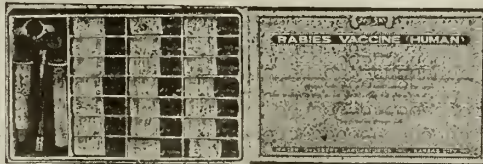
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ously beneficial and seemingly legitimate phases of its effect on man. He must give recognition to the fact that, used in moderation, besides being an easily digestible source of calories, it results in a great deal of gratification and pleasure to enormous numbers of people, giving them relaxation at times and again, by releasing the inhibitions, a stimulus. Nevertheless, it seems certain that at any time when one is confronted with a task that calls for a clear head, a keen vision and a steady muscle, there is no "permissible" dose of alcohol. —*Jour. A.M.A.*, May 30, 1925.

1. Benedict, F. G.: Alcohol and Human Physiology, Indust. & Engin. Chem. 17:423 (April) 1925.
2. Miles, W. R.: Pub. 266, Carnegie Institution of Washington, 1918; Pub. 333, 1924.

Outlying Acidosis

The acidity developing in the ischemic tissue is doubtless referable in the main to accumulated carbon dioxide, according to Peyton Rous and D. R. Drury, New York (*Journal A.M.A.*, July 4, 1925); for when the yellow patch resulting from an epinephrin injection is exposed to the air by eversion of a flap of skin, it rapidly becomes deep pink, a change that is especially impressive when the surrounding tissue has already decolorized. The acidity is greater than can be measured in terms of phenol red, but not much greater, as is shown by tests on rats stained with bromocresol or chlorphenol red. The maximum color alteration observed after epinephrin is such as would be indicative, under control conditions, of a fall from approximately pH 7.3 to about pH 6.4. The authors have given the name "outlying acidosis" to this condition, meaning thereby a tissue acidosis independent of the reaction of the blood, because lying beyond the influence of this fluid. The outlying acidosis consequent on carbonate administration is encountered only when anhydremia develops, as the hematocrit readings prove. Under such circumstances, with the blood bulk rapidly decreasing, much the same vascular shutdown is known to take place as after a bleeding. The authors experiments have shown that a variety of substances and conditions giving rise to anhydremia will cause outlying acidosis; for example, hypertonic dextrose solution by mouth, or purgation with sodium sulphate. The acidosis thus induced are not uninfluenced by the means taken to produce the anhydremia. Stained rats given dextrose solution become intensely yellow before death, a hue attained by con-

trols only several hours post mortem; there is a tendency for the blood pH to fall; and skin flaps exposed to the air while the animal is yet alive show scarcely any change toward pink, an observation which would suggest that the local acidity is due in the main to acids that are not volatile. The possibility suggests itself that tests can be made for outlying acidosis by local injections of an unbuffered solution of indicator.

Combined Gastric and Duodenal Ulcer

In approximately 7,500 roentgenographic examinations of the gastro-intestinal tract in the last three years, Jacob Buckstein, New York (*Journal A.M.A.*, May 2, 1925), has seen only three cases in which both the roentgen ray and surgical exploration demonstrated the presence of a combined gastric and duodenal ulcer in the same patient.

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Medical X-Ray and Surgical Treatment of Goiter

E. P. SLOAN, M.D., Bloomington, Illinois

Read before the Kansas State Medical Society, Topeka, Kansas, May 5th, 1925.

For the purpose of this paper we will use our definition for goiter, which is "goiter is the diseased portion of the thyroid gland." Taken in its broadest sense, this will include hypothyroidism. Under medical treatment we will include the consideration of prevention.

For thousands of years goiter has been recognized as a mysterious affliction causing deformity. Only within recent years has it been recognized that goiter is not only the cause of deformity, but often is the cause of cardiovascular changes, emotional or mental states (sometimes insanity), defective or abnormal development, exophthalmos, tremors, insomnia, weakness, etc.

Its distribution is world wide. No country is free from it. Bram of Philadelphia conservatively estimates that over five millions of the people of the United States are suffering from goiter, and that about half of them have no medical attention; or if treated at all it is by chiropractors, osteopaths, christian science, patent medicines, etc.

The largest number of deaths in any one general classification in the registration area of the United States has for several years been in that of cardiovascular disease. Eighty per cent of the cases of cardiovascular disease that we see are directly attributable to goiter. In addition to deaths so listed, there are also many that are listed under other causes such as apoplexy in which goiter has contributed to the shortening of life by its effects on the cardiovascular system.

Goiter is one of the most insidious diseases which attack man and animals. The sum total of its ravages throughout all ages and in all lands is still unrealized. It often attacks the most beautiful girls, the best mothers and the most famous athletes. It seems prone to attack those who are otherwise perfect.

This disease was formerly thought to attack only adults, but in recent years it has been recognized in children and even in infants. The same disease, degeneration or new growth when situated in other organs, does not have the same course and result as when situated in the thyroid, because the thyroid when diseased or the seat of degeneration, inflammation or new growth develops changes in function that affects seriously almost every structure in the body. Results of thyroid hypo, hyper or dys—function are so varied in kind and severity that the problem becomes one of great magnitude.

The goiter problem of today is not only that of the treatment of tumor in the neck, but includes prevention and early recognition and treatment before cardiovascular changes occur. No great progress can be made in prevention without adequate knowledge of the situation. This can only be obtained by wide surveys correctly and impartially made. The only group of people who can do this much needed work is that of the general practitioners. On them must fall the responsibility for adequate information on which to base prevention measures. On them must fall the responsibility of early diagnosis and early treatment.

Most general practitioners are alive to the importance of the subject but are somewhat confused by the variety of opinions and theories expressed by the men who have given it special attention. This confusion is not lessened by the absence of standard nomenclature and classification. Almost every man giving special attention to goiter has his own nomenclature, classification and definitions. The general practitioner is properly looking to this group of men for guidance. They give him information in many languages. The general practitioner is properly looking to this group of men for actual facts.

Each surgeon, pathologist, internist, radiologist, general practitioner and each governmental agency, such as city health departments, state departments of health, United States Public Health Service, etc.,

is working independently, using his own nomenclature, his own definitions, his own standards. The general practitioner is asking of this group of men and they are asking each other questions that can only be answered after information from all of them is brought together and reported in the same language.

The reduction of mortality cannot be effected to any great extent by the efforts of the goiter surgeons. The reduction of mortality and invalidism from the effects of goiter must come through the efforts of the general practitioner, the man who sees them first.

At the next mid-year meeting of the American Association for the Study of Goiter at Atlantic City, Tuesday of A. M. A. week, the entire afternoon is given to the conference on prevention and the conference on nomenclature and classification. There is need for such. There is also need for definite information which can only be supplied by the general practitioner.

A most important and valuable survey has just been made in Topeka. I hope that Doctor Brown will be called upon to tell us the results of this survey. Such a survey should be made every year.

MEDICAL TREATMENT

Much has always been hoped for. Much has always been claimed for the medical treatment of goiter. In the light of our present knowledge what can be done with medical treatment?

First. Correct deficiencies. Important for prevention as well as for treatment. (Iodin, calcium, phosphorus, potassium, iron, sulphur, et cetera. Also vitamin deficiencies.)

Second. Control infections. (Systemic and local.)

Third. Alteratives.

Fourth. Treatment of complications. (Goiter Heart—Hyperadrenalism, etc.)

Careful attention given to general and focal infections, to adequate supply of iodine, calcium, phosphorus, iron, sulphur, vitamins, et cetera, in food and water supply will undoubtedly greatly lessen its incidence.

Recognition of hypothyroidism is of almost as much importance as the recognition of hyperthyroidism. It changes the emotional states and reduces the efficiency of those afflicted. It is easier overlooked. Attention is often called to hypothyroidism by the characteristic heart shadow. The shadow from the heart of the hypothyroid patient usually shows a narrow aorta and a

small vertical heart. The shadow of the heart of the patient with hyperthyroidism is usually more globular with increase in the size of the shadow of the aorta. The treatment for hypothyroidism is the correction of nutritional deficiencies and, of course, the administration of thyroid. Many of these patients have other endocrine dysfunction, such as hypogonadism or hypopituitarism that demands glandular therapy. One must not expect *rapid* improvement in hypothyroidism. A change of climate is often beneficial. A period of rest treatment with force feeding is often essential.

Tubercular patients should always be carefully watched for evidence of goiter, both hypothyroidism and hyperthyroidism. A tubercular patient with a rather small vertical heart and a long narrow aorta shadow should always be suspected of having hypothyroidism. Proper measures for the relief of the hypothyroidism will frequently be followed by rapid improvement. The symptoms and toxic effects of tuberculosis and goiter are nearly alike. They are often present together. If the patient can carry both loads, the removal of one will be attended by almost spectacular improvement. Every tubercular patient whose pulse rate is higher than is consistent with his temperature curve should be suspected of having an active goiter.

Every patient having influenza, measles, scarlet fever, diphtheria, et cetera, should be watched for signs of strumitis or thyroiditis for weeks and usually months afterwards. Every year we are able to *definitely* trace a larger percentage of our cases of goiter or diseases of the thyroid gland to some systemic or focal infection. The enlargement of the thyroid usually begins within a few weeks after the time of infection. But the enlargement often does not attain sufficient size to seriously impress the patient for some time. This late development of obvious evidence of the presence of thyroid disturbance is the reason that infection as an etiological factor has not received the attention that it deserves.

According to many eminent men in our profession, a deficiency of iodine is one if not the sole cause of endemic or simple goiter. There has been a steadily increasing interest on the part of public health authorities, physicians and the laity in what has been called the iodine treatment of goiter. Much publicity has been given it. The public has been led to believe that iodine is

the treatment par excellence for goiter. But it is not generally clearly understood that *only prophylaxis* is contemplated, treatment being an entirely distinct subject, which had best be intrusted to the practicing physician. While iodine holds a definite place in thyroid therapy, its administration requires study and observation of individual patients as well as caution in application of the remedy, lest untoward results or permanent damage be inflicted. The public should be made to understand that iodine supplied to correct iodine deficiency is a nutritional procedure and not medical treatment at all. Calcium deficiency, phosphorus deficiency, iron deficiency are also of importance. There is much evidence that vitamin deficiency often is followed by thyroid disturbances. Adequate amounts in the food supply of calcium, phosphorus, iron, vitamins, iodine and many other things are necessary for perfect nutritional balance.

No conclusive evidence has ever been presented that pathology in the thyroid gland can be influenced in any way by medical treatment, except as its effect can be altered by symptomatic treatment and by proper correction of dysfunction in other organs. In Basedow's disease there is rapid metabolism and usually defective assimilation. Deficiency of calcium, phosphorus, potassium, sulphur, iron and iodine rapidly develop. As iodine is assimilated more rapidly than any of the other basic constituents, such as calcium, phosphorus, et cetera, and is perhaps more important to metabolism, correction of the iodine defect by administration of any preparation of iodine is followed by prompt symptomatic improvement in the condition of the patient. But when enough iodine has been assimilated to *correct the iodine deficiency, no further benefit can be obtained by its administration.*

The medical treatment of exophthalmic goiter of Basedow's disease is limited to the correction of iodine deficiency, calcium deficiency, phosphorus deficiency, et cetera, and the use of alteratives, rest and hygiene. Quinine, ergot, phosphorus and neosalvarsan are among the most valuable drugs. *Small* doses of thyroid administered over a long period of time has been thought to be of great benefit.

GOITERS OF PUBERTY

A definite enlargement of the thyroid at puberty is a rather common occurrence. It is doubtless true that there is normally some enlargement of the thyroid at pub-

erty. But the majority of definite enlargements of the thyroid at puberty are either endemic goiters or else are due to some local irritation. The local irritation may be due to a foetal adenoma present in the gland, hemorrhage, new growths of infection. A foetal adenoma usually manifests itself at about the age of puberty by a large smooth increase in the size of the lobe in which it is situated. Unilateral enlargement at the age of puberty is usually due to this cause. This type of goiter, unless it becomes toxic and the clinical picture of toxic adenoma presents itself, requires no treatment until after the diffuse enlargement has subsided and the adenoma or other tumor is palpable, when it should be removed.

ENDEMIC GOITER

In the early stages of true endemic goiter, correction of all nutritional deficiencies, vitamin as well as chemical (especially iodine), control of existing infections and the administration of thyroid extract are indicated. If the condition does not promptly disappear, small doses of sulph-arsphenamine should be administered intravenously. Small doses of mercury, given over a long period of time, is of all drugs the most dependable as a curative measure.

ACTIVE OR TOXIC GOITER

Simple, mild goiter may be present for many years with apparently no other discoverable symptoms than the enlargement of the neck. The majority of them, however, finally become active or toxic. We have come to the belief that nearly all of them are activated by strumitis from some systemic infection like "flu," scarlet fever or diphtheria, or from some focal infection, teeth, tonsils, etc.

The exact mechanism of such activation or toxemia is not known with certainty. The latest theory founded upon observations by Sarkar and Brown of Edinburgh is that abnormal or hyper secretion of the thyroid stimulates the bone marrow to increased activity. That a loss of balance occurs between the mononuclears and polynuclears. That increased work is thrown upon the spleen. Later lessened activity of the bone marrow occurs. If this rather promising theory is correct one would expect that in the early stages radiation of the long bones would be followed by beneficial results and that in the late stages radiation of the spleen would be followed by definite favorable results.

Our observations of a few selected cases during the last two years are not extensive

enough to report definite conclusions. The most definite results appear to have been from radiation of the spleen when mildly toxic goiter of long standing is present. After radiation of the spleen, the slight jaundice and characteristic facies have disappeared and marked improvement noted for a period of about three weeks. Subsequent radiations seem to be followed by progressively less results. Radiation of the long bones in early acute exophthalmic goiter has been followed in some cases by a marked drop in basal metabolism rate and general improvement.

In an earnest sincere effort to accomplish curative results, six years ago we treated a series of one hundred and ninety selected toxic cases with x-ray, and ten cases with radium. We arrived at the following definite conclusions.

Fractional doses of radiation will often stimulate the secretion from the gland and aggravate the condition. Insufficient doses will sometimes check the normal secretion from the areas of normal tissue present in the thyroid, and not check the toxic secretion from the changed or abnormal areas in the gland.

All thyroid secretion can be definitely and positively checked for a period of two or three weeks by massive dosage of radiation. The condition of the toxic patient can be confidently expected to improve for a period of from two to four weeks following a massive dose. The second treatment is about one-half as effective as the first one, and the third treatment makes them worse about as often as it makes them better.

Simple colloid goiter in its early stages can sometimes be greatly reduced in size by fractional doses of radiation combined with the administration of alteratives such as arsenic, iodine, quinine and mercury.

In the six years that have elapsed since that series of cases were treated, one hundred and sixty-two of the two hundred have been operated without mortality; seven are apparently well without operation; twelve are invalids from goiter; nine have died without operation; and the other ten have been lost track of. Our experiences in the six years have confirmed our previous conclusions and have convinced us that treatment of choice for early diffuse colloid goiter, when no adenoma can be discovered is fractional doses of radiation, combined with the administration of

alteratives and correction of nutritional deficiencies.

As a dependable measure for cure of all kinds of well developed goiters, especially when toxic, we must rely upon operative interference. The development of minor preliminary operative procedure to tide the patient over a crisis and make future radical operation safe has contributed much to reduction of operation mortality.

Recognition of the role of chemical and vitamin deficiencies, iodine, calcium, sulphur, et cetera, and their proper correction has also contributed to the reduction of mortality. The development of the multiple stage operation has saved many lives. Many very poor risks can be carried along and their goiters completely removed with one hospitalization by multiple stage operation.

In the multiple stage operation, the choice of anaesthesia is of much importance. Patients usually dread and object to a second ether anaesthesia. With local anaesthesia, a patient is sometimes frightened or hurt, and dreads a second operation. With gas anaesthesia, either nitrous oxide-oxygen or ethylene-oxygen, the patient rarely dreads a subsequent operation.

Severe heart cases with decompensation are especially well handled with the multiple stage operation. Many of these cases can be operated on in this way that would take many months at least to get in condition for a complete radical operation at one time. The improvement following successful removal of a portion of the gland is often so prompt and satisfactory that it is surprising.

The improvements in technique of radical operation are, of course, important. In our first one thousand operations we encountered collapse of the trachea forty-seven times. In our second one thousand operations, thirty-eight times. In over four thousand five hundred operations, since we recognized the fact that the mechanics of delivery of a lobe is not dissimilar to that of a posterior vertex presentation in obstetrics; that to deliver the lobe you must have flexion, rotation, extension and progress; and have observed the mechanics of delivery, we have not encountered collapse of the trachea one single time, nor had to cut the muscles transversely.

But not cutting the muscles, the shock is not so great, the muscles are uninjured, the convalescence is shortened, the discomfort is lessened, the complete control of the voice is not interfered with, and the mor-

tality is lowered. Many patients, who are good surgical risks for the operation that is done without cutting the muscles, are poor surgical risks for operation with clamped and cut muscles.

The improvement in technique has made goiter operation almost a minor operation if done before complications have occurred. Such as intrathoracic projections, decompensated hearts, et cetera.

The successful preparation of the patient for the operation has had much to do with the reduction of mortality. This in the main consists of correction of insufficiencies, iodine, et cetera, control of toxemia and safe guarding the heart. Minor operative procedures such as ligation, injections, et cetera, and the multiple stage operation have their life saving place in severe cases. There is no other operation performed today in which the results are so uniformly satisfactory as the operation for goiter.

CONCLUSIONS

The correction of nutritional deficiencies and control of infections are the basis of prevention and are in large part the medical treatment of goiter. The public should be made to thoroughly understand that the supplying of iodine for the correction of iodine insufficiency is a nutritional procedure and is not medical treatment.

There is great need for standard nomenclature and definite standardization of treatment.

Notwithstanding the great value of nutritional and medical treatment, the main reliance in well developed goiter must be in the surgical treatment.

A wide survey of our entire country by each county society as to prevalence and the result of treatment is the only way that adequate information in regard to goiter can be obtained.

The two great causes of goiter are nutritional deficiencies and infection. Every advanced or well developed goiter or toxic goiter means that nutritional deficiencies or some infection or both have been present and were not promptly controlled.

—R—

Use of Skin Tests in Medicine

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As I mentioned to a group of you once before, that as the pulmonic area is frequently called the field of Cardiac Romance so is the field of anaphylaxis and hypersen-

sitiveness the field of Immunological Romance. Judging from the questions I have been asked by the laity who have been reading the popular articles on anaphylaxis and by inquiries from a number of my professional brethren, there are a large number who erroneously place all skin reactions into the field of anaphylaxis. I might also add that there are many able clinicians who would consign all skin reactions to the discard. This latter results, in a measure no doubt, because many clinicians are too busy to become acquainted with the brilliant results from the study of skin reactions in the field of experimental medicine. The few valuable contributions in clinical medicine have found their use largely in the field of pediatrics, dermatology and preventive medicine. The internist, the surgeon and many of the specialists have little occasion to use the von Pirquet¹ reaction, the Schick² test, Dick³ test, the Schultz-Charlton⁴ blanching test or observe the skin reaction indicating immunity to small pox. In our hospitals, clinics and even in private practice both clinicians and specialists use skin tests to determine the etiology of hay fever, asthma, food idiosyncrasies, etc., and yet all admit that a good history here is a very important factor.

The object of the present paper is to offer a simple clinical grouping of skin tests, to call attention to their outstanding phenomena, their underlying immunological basis and their application and importance in experimental and clinical medicine.

I have used the term "skin tests" in the very broad sense. That is, I am referring to visible changes manifest by either direct application such as the patch test for poison ivy, the scratch test for hay fever, asthma, etc., the instillation into the conjunctiva as in the ophthalmic reaction of Calmette or Wolff-Eisner⁵, or the injection methods such as the intracutaneous inoculation and also deeper injection into the dermis, the former used in the Schick test and Dick test as well as susceptibility tests, the latter in experimental work eliciting the phenomena of Arthus⁶.

Keeping this in mind I would like to suggest first (Table I) the grouping of the outstanding skin tests used in experimental or clinical medicine into ten groups based upon the objective of the test in question, divided into four divisions indicating their underlying mechanism; second (Table II) to re-arrange these in accordance with the

outstanding gross findings and time of appearance.

TABLE I.

- A. Basis of groups 1 to 7: Specific hypersensitiveness, frequently called anaphylactic reaction classified as to object of test:
 1. To avoid so-called anaphylactic shock following a second injection of serum or horse proteins.
 - a. Before administering antitoxin.
 - b. Before administering anti-pneumococcus serum.
 - c. Before administering anti-streptococcus serum.
 - d. Before administering other anti-sera.
 2. To determine the etiological factors of hay fever, asthma, and food idiosyncrasies; heredity factor established.
 - a. For diagnosis and to ascertain therapeutic results.
 3. To diagnose certain chronic infections—based upon hypersensitiveness due to infection.
 - a. Tuberculin—v. Pirquet reaction.
 - b. Luetin reaction.
 - c. Trichophyton, favus and other infections.
 4. As an aid in the diagnosis of acute infections.
 - a. Pneumococcus toxin reaction of Kolmer.
 - b. Typhoidin reaction.
 5. Purely experimental cutaneous sensitizations.
 - a. Some of the bacterial allergies.
 - b. Arthus' phenomena.
 6. The reactions to vaccinia indicating immunity to small pox.
 7. To determine susceptibility to poison ivy.
- B. Basis of Group 8: Non-specific hypersensitiveness, not known to be upon any immunological basis but associated frequently with specific hypersensitiveness to foods, drugs, etc.
 8. To determine reaction to slight irritation.
 - a. Dermographia.
 - b. Some of the pseudo reactions.
- C. Basis of groups 9 and 10: Not hypersensitiveness. Positive reactions indicate deficiency of specific antitoxin in the individual tested.
 9. To determine susceptibility to true toxins.
 - a. Schick test. (Diphtheria.)
 - b. Dick test. (Scarlet fever) (Tentatively placed here pending further research.)
 10. For the diagnosis of scarlet fever.
 - a. Schultz-Charlton Blanching test.
- D. Inflammatory reactions in normal individuals as frequently seen in control arm, as well as test arm.
 - a. Due to non-specific proteolytic enzymes in the tissue.
 - b. Normal inflammatory reactions to toxic substances such as:
 - (1) Phenol, etc., used as preservatives.
 - (2) Strong bacterial toxins and toxic substances.
 - c. Inflammatory reactions from Trauma.

TABLE II.

Classification as to Outstanding Gross Findings.

- I. Wheals and areola the outstanding features. Reaction immediate within 15 to 30 minutes.

Examples:

- Group 1. Exciting agent, serum, intracutaneously injected.
- Group 2. Etiological factors of hay fever, asthma, and food idiosyncrasies, intracutaneously administered.
- Group 8. Exciting agent—slight irritation, mechanical.
- II. Vesicle formation characteristic with certain amount of hyperemia. Reaction appears after one to several days. Example:
 - Group 7. Exciting agent, extract of poison ivy (patch test).
- III. Hyperemia the outstanding feature. Reaction does not appear for from several hours to one or two days. Example:
 - Group 9. Exciting agent, soluble toxin. (Dick test), (Schick test).
- IV. Infiltration, edema, induration, hyperemia and perhaps slight necrosis. Reaction appears within 24 to 48 hours or longer. Examples:
 - Group 3. Exciting agent, tuberculin intracutaneous or cutaneous reaction.
 - Group 4. Exciting agent, bacterial antigen, e.g. typhoid protein.
 - Group 5. Exciting agent, soluble protein. (Purely experimental cutaneous sensitizations of Arthus.)
- V. Blanching of an area of hyperemia. Reaction appears in 8 to 10 hours and persists. Used in diagnosis of scarlet fever. Example:
 - Group 10. Blanching agent, antitoxin in convalescent or immune serum.

N. B. Reference to groups refers to classification in Table I.

You will observe then that the first seven groups are placed under the heading of specific hypersensitiveness and by many would be called anaphylactic reactions. All are agreed that the Arthus' phenomenon is a true local anaphylactic reaction but Coca⁷ has placed hay fever, hypersensitiveness due to infection, and poison ivy hypersensitiveness in separate and distinct divisions of hypersensitiveness other than true anaphylaxis. Wells⁸, Zinsser⁹ and others have regarded them as true anaphylactic reactions except that perhaps of poison ivy.

Now with your permission, I will briefly discuss the reactions as suggested under the groups of Table I with some special emphasis on the tuberculin reaction, typhoidin reaction, Dick test and the brilliant work of Opie¹⁰ on the phenomena of Arthus and shall include some of my own findings in reporting on the hay fever reactions, the typhoidin and Dick tests.

Group 1, intradermal reactions to ascertain hypersensitiveness to a second injection of horse serum has been the subject of much experimental and clinical investigation. Hooker¹¹ has recently pointed out that even the small amount of horse serum contained in toxin-antitoxin suffices to sensitize many children to the extent that

if intracutaneous injections of dilute horse serum are given several weeks later the sensitiveness is evidenced by wheals and areoles in quite a number of individuals. This is true also for children who have been given antitoxin. Park¹² however, calls attention to the fact that clinical experience has shown that if a condition of asthma or status lymphaticus is ruled out, death practically never occurs although reactions may be severe on re-injection of horse serum in spite of the cutaneous evidence of hypersensitiveness. This test then is of little clinical significance except to indicate possible severe reactions. From the standpoint of pure scientific research it has yielded some very interesting information.

Group 2. The use of the skin test in determining hypersensitiveness to various substances responsible for a particular case of hay fever, asthma or dermatological condition in question has led to some very interesting results in the field of experimental medicine as follows:

1. That hypersensitiveness or atopy as Coca and Cook call it, is upon an hereditary basis. This has been shown by the splendid work of Cook, Vande Veer¹³ and Coca. The tendency to become hypersensitive to something is transmitted in accordance with Mendell's law.

2. The substance for which a person is sensitive may or may not be protein. This is of interest theoretically because until quite recently it was regarded as impossible to produce antibodies for anything that did not give some of the reactions for the proteins and even yet great conservatism prevails. It seems to be impossible to produce antibodies for many of the substances bringing on attacks of hay fever, etc.

3. The extreme degree of sensitivity evidenced by patients has not been duplicated in experimental animals except the unconfirmed results of Ulrich¹⁴.

4. The transfer of blood from hay fever patients has not resulted in conferring sensitivity on laboratory animals. Wells cites the case of Ramirez where a patient transfused with the blood of an individual sensitive to horse protein, became sensitive also to horse protein. This is interesting and suggestive but might have been a coincidence since hypersensitiveness may appear at any time of life for any substance in individuals inheriting the tendency. I¹⁵ have attempted to passively sensitize virgin guinea pigs with blood from hay

fever patients and the results as judged by the Schultz-Dale reaction have been negatives. This was in accordance with Coca's¹⁶ earlier work. The recent work¹⁷, using the Dale technique, suggests toxic rather than anaphylatic reactions. Coca's¹⁸ recent work on passive transfer of local hypersensitiveness from sensitive to normal individual is very suggestive. It apparently verifies the passive transfer of the case cited by Ramirez.

5. Experimental and clinical medicine has shown that occasionally a fatal termination may result following even the intracutaneous inoculation of exceedingly small quantities of particular substance for which the patient is sensitive. These all occurred in exceedingly susceptible asthmatics or individuals with enlarged thymus glands. Adrenalin cannot apparently be depended upon to prevent death in all cases.

6. The biological reaction is evidently the most reliable, the intracutaneous method next and the scratch test least reliable.

7. Multiple sensitization has been not uncommonly observed and desensitization is only partial as compared to complete desensitization observed in artificial anaphylaxis.

8. In the field of pediatrics, Schloss¹⁹ and others have found skin tests very valuable in studying the exudative diathesis group of children. The above, along with many other ascertained facts, form a basis for the further studies aiming toward the explanation and the more efficient handling and treatment of the condition of hypersensitiveness in its broadest sense. The subject has been lifted from the realm of the mysterious and placed upon an experimental basis. Research work in this field, however, is fraught with many dangers of error and leads to the questioning of one's sanity by even one's most loyal and credulous friends. For these reasons carefully controlled work and great conservatism is necessary to prevent making this term the diagnosis of all conditions for which any other diagnosis cannot be made.

Group 3. The brilliant research of v. Pirquet (1911) and more recently of Zinsner²⁰ on the tuberculin reaction and Noguchi on the Luetin reaction for syphilis as well as the work of others has shown that in certain chronic infections there is given off substances from the focus of infection which change the reactivity of the tissues so that a local inflammatory re-

action occurs upon the intradermal inoculation of old or especially prepared cultures of the agent causing the infection. A reaction can also be obtained by the instillation of some of the material into the eye. The explanation of the mechanism as well as many of the limitations of these phenomena have resulted from careful clinical observation and much experimental work. The tuberculin reaction has found a place especially in pediatrics. Skin reactions of a similar nature for some of the fungus infections, chronic gonorrhea, lues, the typhoid carrier state have not justified, as yet, their general adoption. Sherrick²¹ (1915) and more recently Kolmer, Matsunami and Broadwell²² have shown that normal persons under the influence of iodides would yield positive reactions when intracutaneously injected with luetin.

Group 4. The skin reaction reported by Kolmer²³ as being of value in diagnosing some of the obscure central pneumonias has apparently not met with much clinical favor. It is supposed to be upon an anaphylactic basis and may prove of value in experimental studies.

Gay²⁴ introduced a test which he thought might be of value in studying immunity to bacillus typhosus. It consisted of the intradermal injection of material containing the protein of bacillus typhosus. A positive reaction was indicated by an inflammatory response as suggested in Table II. Gay concluded that a positive reaction indicated a developing immunity and showed that a high percentage of individuals giving a previous history of typhoid also gave a positive reaction.

In some work done by Sherwood and Stoland²⁵ upon the typhoidin reaction and other skin reactions using staphylococcus protein, we observed that among normal animals there were very slight skin reactions occurring in about the same percentage as gave strong positive reactions among focally infected animals. This suggests a possible hereditary mechanism. In our work we produced local infections with typhoid organisms and staphylococci by introducing collodion sacks containing cultures of these organisms into the abdominal cavities of laboratory animals and making small punctures in the sacks before closing the operative wound. We could not observe any correlation between positive skin reaction and altered sensitivity of smooth muscle of intestine or uterus such as occurs in the anaphylactic state. The results of Zinsser and others as well as our

own have shown that only about one-third of these infected animals give definite skin reactions. Gay regarded the typhoidin reaction as an index of immunity. A large per cent of immunes give the reaction. The reasons for negative reactions in the presence of definite evidence of infection have been strongly suggested by the experimental research in this field.

Group 5. Under the group entitled purely experimental cutaneous sensitization, I have placed the phenomenon of Arthus. This is best observed in the rabbit after it has received repeated injections of a soluble protein and consists in the development of a local inflammatory reaction developing at the site of a dermal or subcutaneous inoculation of the particular protein in question. A sterile abscess may develop. Opie has recently studied this phenomenon and has found that the reaction is a typical inflammatory one and will be called forth in any tissue of the body in which the specific protein is injected. That is, in an animal receiving repeated injections of, for example, human blood serum, if after 5 or 6 injections have been given and a suitable time allowed to elapse, a deep injection is given into the lung or liver or other organ, there immediately results a violent local inflammatory reaction followed by infiltration, necrosis and possibly the development of a sterile abscess. He has observed that the reaction is dependent upon the presence of precipitins in the tissue and that the degree of reaction frequently varies with the site of test injection. Auers' remarkable results on the production of exfoliative dermatitis in laboratory animals was logically explained on this basis.

Group 6. The reaction to cow pox vaccination indicating immunity was first described by Jenner (1798) and has since been studied by v. Pirquet and Schick (1911) and more recently by Force²⁶ (1914). Jenner wrote, "It is remarkable that variolous matter, when the system is disposed to reject it, should excite inflammation on the part to which it is applied more speedily than when it produces the small pox. Indeed, it becomes almost a criterion by which we can determine whether the infection will be received or not." This phenomenon is of great value in preventive medicine as its observation enables one to avoid repeated inoculations that would otherwise be given when a "take" is not obtained. This reaction is

generally regarded as on an anaphylactic basis.

Group 7. A great deal of experimental work has been done on the phenomenon of susceptibility to poison ivy. While it may not be regarded as of vast importance clinically, yet the results have contributed to our knowledge of immunity. Positive reactions are vesicles appearing within from one or more days following the application of an extract containing the toxic substance of poison ivy. The vesicles are usually accompanied by a certain amount of hyperemia and a definite pruritus. Coca places the reaction under normal hypersensitiveness. The interesting experimental results observed are:

1. That the toxic substance is a glucoside, not protein in nature and that protective substances are developed by vaccination.

2. That a very large percentage of individuals seem more or less susceptible.

3. That frequently a fairly wide distribution of vesicles develop over the body from a small primary area of contact carefully covered by adhesive.

4. That the incubation period may be as long as 24 days. These and other observations are of considerable importance from the standpoint of experimental immunology.

Group 8. You are all familiar with the dermatographia phenomenon. It is frequently present in individuals giving a history of indiscretions in diet, that is, the eating of foods for which they have an idiosyncrasy and for which they will frequently give specific reactions following intracutaneous administration of small amounts of the food in question. The research of Chambers²⁷ (1917) and also of Gilchrist²⁸ (1908) are quite suggestive of the cellular reaction following the mechanical irritation such as is used in demonstrating the dermatographia phenomenon. Wells²⁹ reports their work as follows: "Even in urticaria factitia the simple mechanical irritation which suffices to produce wheals is followed very quickly by extensive nuclear fragmentation, but it may be that unknown poisons are present in the hypersensitive skin and cause the karyorrhexis, and not the trauma alone."

Group 9 and 10. Susceptibility to diphtheria depends upon a deficiency of antitoxin in the circulation. If one injects a small amount of diphtheria toxin into the tissues and it is not neutralized because of a deficiency of antitoxin then it injures the tissues where it is injected and a

local inflammatory process results which we call a positive Schick test. Research has shown that reactions occurring earlier than 18 hours and fading early are false reactions and so we think of true reactions as coming on about this time or later and persisting for several days and usually leaving a pigmented area when they disappear. It has an economic value where it is desired to immunize all susceptibles among the school children of any city as well as many other practical applications of which you are aware. Park and others have shown that certain age groups should be immunized without testing and all of you have found that frequently in private practice testing is not feasible. In such cases it should be remembered that the test was only a means to an end and immunization with T. A. T. can be given where susceptibility tests are objected to.

The recently introduced Dick test is supposed to be upon the same immunological basis as the Schick test. I would like, however, to call attention to certain interesting things that have come out of the research upon the Dick test.

1. Certain hemolytic streptococci associated with scarlet fever produce toxic substances used in the Dick test that are regarded by many as true soluble toxins.

2. The reaction resembles the Schick test except that it appears earlier and is fading at the time a Schick test is reaching its most positive stage.

3. Scarlet fever is regarded as a true toxemia with the primary focus of infection in the naso-pharynx and the circulating toxin responsible for the rash and symptoms-complex of the disease.

4. Convalescents from scarlet fever commonly give a negative Dick test.

5. Serum from convalescents, when mixed with the toxic substance and incubated for 30 minutes prevents or retards a reaction when the mixture is injected into a susceptible individual.

6. Immunization with toxin will cause an individual to give a negative reaction whereas he gave a positive one before immunization.

Before I further discuss the Dick test I would like to call attention to the Schultz-Charlton blanching test. This seems to be of considerable value in differentiating the erythema of scarlet fever in doubtful cases from other erythemas resembling it. This test consists in the intracutaneous inoculation of one half cubic centimeter of blood

serum from a scarlet fever convalescent or immune individual into an area of erythema. In true scarlet fever there will occur a blanching out of the rash in the area injected. The blanching is evident in about 8 hours and will persist. It has been observed that serum from individuals giving Dick tests, will blanch the erythema of scarlet fever.

At this point I would like to call attention to some points about the Dick test that would seem to be of interest and need further investigation. First, a serum that will blanch a scarlet fever rash will not blanch the hyperemia of a positive Dick test. Second, when this serum is mixed with scarlet fever toxin, it frequently only retards and does not prevent the developing of a positive reaction. Third, in my own work I have observed that serum from two strongly positive reactors showed some protection against the toxin. Fourth, we found approximately 25 per cent of individuals 20 years of age, giving a history of scarlet fever and who appeared to be susceptible as judged by the Dick test. Nesbit³⁰ working with younger individuals under the guidance of Dr. Dick observed that 40% of those giving a history of having had scarlet fever gave positive reactions, indicating susceptibility as compared with 60% of the whole group. I realize that perhaps many of the cases diagnosed as scarlet fever may have been something else but at that the impression of clinical men has been that a much greater immunity results from an attack of scarlet fever than would be indicated by the skin tests. Our results and those of Zoeller suggest that a local tissue mechanism may introduce a source of error and Zingher³¹ and others have felt that we are quite likely dealing with more than one toxic substance. The streptococcus toxic substance apparently differs from most of the other soluble toxins in that experimental animals, including the guinea pig, seem to be quite refractory to it.

It will be observed that I have not included many skin reactions which might very well have been placed in Table I. For this reason I would like to mention the hypersensitiveness to light and heat recently reported by Duke³² and also the shortening of the disappearance time of salt solution intradermally administered in lobar pneumonia in children and reported upon by Harrison³³. The omission in this paper of any discussion of division "D" entitled normal inflammatory reactions as

well as any theoretical discussion of anaphylaxis and hypersensitiveness has been intentional because time and space do not permit.

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R

Tryparsamide, Its Development and Present Status in the Treatment of Neurosyphilis

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Tryparsamide is the name applied to an arsenic compound first prepared by Jacobs and Heidelberger,¹ in 1917 in the Rockefeller Institute for Medical Research, used first in trypanosome infections and recently used in the treatment of late syphilis of the nervous system. It is the sodium salt of N-phenylglycineamide-p-arsenic acid, containing 25.32 per cent of arsenic in the pentavalent form. Tryparsamide is a colorless, odorless powder, readily soluble in water.

The toxic action of tryparsamide was carefully studied by Brown and Pearce² in 1919 in various animals. They found that the substance could be given by almost any method of administration to these animals.

in very large doses—a minimal lethal dose varying from 0.75 to 2.75 gm. per kilogram of body weight for different species. The tolerance of different animal species varied rather widely but with one exception, the reaction to toxic doses was of a favorable character. These workers found the toxic effects confined to doses relatively close to the minimal lethal dose, and recovery from sublethal intoxications was remarkably rapid and complete. It was further noted that repeated administration of very large doses at comparatively short intervals of time might be given without incurring dangers incident to cumulative action or to superposition of toxic effects. It was possible to develop a high degree of tolerance—well above that which was fatal for the normal animal.

Brown and Pearce³ tested the therapeutic action of trypanamide in a large series of mice, rats, and guinea pigs, experimentally infected with various strains of trypanosomes. Very favorable results were produced with doses from 0.2 to 0.3 gm. per kilo of body weight, which is much below a toxic dose. The absence of organic injury or functional disturbance following therapeutic doses was a very significant point. In a second series,⁴ these workers found a marked curative action in experimentally infected rabbits, with best advantage by repeated dose therapy.

The action upon spirochete infections⁵ was not so striking, though a "very definite effect is produced upon the course of infection by *Treponema pallidum*. In the case of blood spirochetes, the infection is ameliorated, and even though the spirachetes are not immediately destroyed, the infection is frequently brought to a termination which leaves the animal in a condition not unlike that produced by more powerful spirocheticidal agents. It does possess a considerable degree of spirocheticidal action, but its chief effect is seen in the peculiar manner in which it modifies or controls the course of the infection." The lesions may be favorably influenced out of proportion to the action on spirochetes.

In three classes of animal infections, Pearce and Brown⁶ found the trypanocidal action of trypanamide was much less for *Trypanosoma rhodesiense* than for *Tr. gambiense*. The outlook for the drug in the therapy of Rhodesian sleeping sickness was forecasted to be much less hopeful than in gambiense infections, though because of the tolerance exhibited to the drug and the possibility of employing an intensive sys-

tem of treatment, it was hoped that some benefits might be derived from its use.

The use of the drug in human infection by *Trypanosoma gambiense* was studied by Pearce⁷ in seventy-seven cases of both early and late stages in the Belgian Congo in 1920. The general beneficial effect of the drug was a noticeable feature of its action in both early and advanced cases as shown by the disappearance of subjective symptoms, by the return of the pulse and temperature to normal limits, by the pronounced improvement of the blood picture, and by well marked gains in weight. Doses of 3 to 7 gm. administered intravenously were sufficient to sterilize the peripheral blood, though relapses were liable to occur unless treatment was continued. Intramuscular administrations produced a longer immunity against relapses than did the intravenous administrations. The only untoward effect in the 77 cases treated, was visual impairment which occurred slightly in six cases, moderately in seven cases, and marked in four cases. Recovery was complete in ten of these cases, some improvement in three others, and slight in the remaining four. All were advanced cases with marked alteration in the spinal fluid except two. There was no instance of sudden complete blindness, but the condition was one of visual dimness of various grades. In one patient, two doses of 4.0 gm. at a week interval was followed by visual disturbance but in the others, more than two doses were given. Pearce believes it is likely that the individual pathological condition of the optic structures in advanced cases is the predisposing factor in the occurrence of this untoward effect.

The penetration of trypanamide into the spinal fluid has been studied by Voegtlin, Smith, Dyer and Thompson,⁸ in rabbits. A heavy suspension of *Trypanosoma equiperdum* was injected into the cranial subarachnoid space of rabbits. No essential difference in behavior toward arsenicals has been discovered between *T. equiperdum*, *T. gambiense*, and *Treponema pallida*. Preliminary investigation demonstrated that trypanosomes thus injected could be recovered in considerable numbers. Trypanamide and other arsenicals were then injected into the ear vein of the infected animals. After 24 hours, a careful search was made in at least six different specimens of cerebrospinal fluid taken from various subarachnoid spaces of the brain and medulla. The absence of trypanosomes in these specimens was considered evidence of permeability of

the meninges by the arsenical injected or of some trypanocidal derivative. Under these experimental conditions, tryparsamide proved more effective than any other of nine arsenicals used. An amount which was only 4 per cent of the minimal lethal dose was 87 per cent efficient. Sulpharsphenamin with 16 per cent of its minimal lethal dose was 82 per cent efficient, being the second most efficient arsenical used.

To date only one report of the therapeutic use of tryparsamide has been published, since the substance is not offered for sale, pending the outcome of clinical study. The preliminary report⁹ of the Council on Pharmacy and Chemistry of the A.M.A. states that the Rockefeller institute has entire control over the chemical and biologic testing and distribution of the substance, and that the Council has postponed the acceptance of the drug until there is confirmatory evidence of its therapeutic value and safety.

The report of Lorenz et al.¹⁰ on the therapeutic use of tryparsamide in neurosyphilis state that given according to their method, it is especially effective in early paresis and other forms of neurosyphilis. In their experience, it is more effective than any other form of treatment used. They state that the introduction of this drug into the therapy of syphilis was not based primarily upon the spirocheticidal action, which was comparatively feeble, but on certain unusual features of toxicological and therapeutic action observed in experimental animals, such as the promptness of recovery from toxic injury, tolerance to repeated doses, a marked tonic effect, and the ability of the drug to induce resolution and healing of syphilitic lesions, even in the presence of actively motile spirochetes, without increasing the liability to the occurrence of a generalized disease. These workers recommend 3 gm. doses, dissolved in sterile freshly distilled water, sufficient to make approximately a 30 per cent solution (10 cc water). This solution is given intravenously at one week intervals for eight weeks. At the same time, mercury salicylate should be administered intramuscularly in 1 gr. doses, three days before the tryparsamide is given, so nine such mercury injections and eight tryparsamide injections constitute a course. A rest period of 5 to 8 weeks is given before beginning a second course. If necessary a third course is given. They were able to influence the spinal fluid Wassermann favorably in 78 cases. In 44 cases of advanced

paresis, 21 had been discharged and were earning a livelihood.

These workers recommend the use of tryparsamide in:

- (1) Neurosyphilis, particularly the parietic type;
- (2) Syphilitic patients who do not tolerate other arsenicals;
- (3) Syphilitic patients which have proven to be "Wassermann fast;"
- (4) Late syphilis i. e., patients past middle age, because it is less drastic than arsphenamin and neoarsphenamin;
- (5) Neurosyphilitic cases in a poor state of nutrition.

Chesterman¹¹ reports a study of the cerebrospinal fluid in forty cases of sleeping sickness, using tryarsamide, and agrees in his results with Pearce and Brown. Smillie¹² has reported on the treatment of mal de caderas, a disease of horses in South America caused by infection of *Trypanosoma equinum*, with tryparsamide. Brown and Pearce¹³ have recently summarized the important features of the action of tryparsamide as: "comparative freedom from untoward effects, a moderate degree of trypanocidal action and slight but definite spirocheticidal action, an unusually high penetrability which enables it to develop a high actual as compared with its potential parasiticidal action, and a remarkable power of reinforcing processes of natural resistance and of promoting recuperation. Therefore the use of the drug should be directed with a view to utilizing these resources and not from the standpoint of a powerful parasiticidal agent."

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R

Convalescent Serum in the Prophylaxis of Mumps

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The use of convalescent serum in the prophylaxis of mumps has been reported recently by Regan with good results. About ten years ago Hess used injections of whole blood from convalescent patients to check an epidemic.

During the past winter, mumps was prevalent in this city and an outbreak of the disease at a large boarding school provided an opportunity to test the value of this procedure.

The first case appeared January 15th, and was promptly removed from the school. The second and third cases appeared January 29th, and every two or three days, one or two new cases appeared until March 6th, when 28 children and adult employees were ill with the disease or convalescing.

Of the remaining 84 children, 53 gave a history of having had mumps leaving 31 as probably susceptible.

Blood taken from the convalescent patients, was allowed to clot over night in large test tubes. The clot was further separated by centrifuging and the serum siphoned off. The few red cells that got into the clear serum gave no trouble and no great care was used in trying to keep the serum clear. Tricresol was added as a preservative.

About 4 c.c. of this serum was injected intramuscularly in the 31 individuals who were regarded as susceptible. One of these was an adult, a teacher. The ages of the others ranged between 8 and 15 years.

Only one further case appeared at the institution, and this was in the teacher, seven days after the injection of the serum.

It is a little difficult to estimate the value of this serum in checking the epidemic because the susceptibility to mumps is not great and it is possible that some of these injected children possessed a natural immunity. However it is significant that this outbreak in a school where the children gathered in a large dining hall and were frequently in contact in dormitories and recreation halls, and where the new cases averaged nearly one a day up to the day of injection, that only one case appeared after that time. As this occurred in an adult seven days after the injection, it raises the point of dosage of convalescent serum and the time of injection with reference to time of exposure. Regan believes that it should be given before the seventh day after exposure. The slow development of the outbreak in the school was probably due to the fact that the children were promptly removed to the hospital when a temperature elevation or any sign of the disease appeared.

TABLE 1.

Showing the Regularity With Which Cases Appeared up to Time of Injecting Serum.

Jan. 14, 1925	.....1 case
Jan. 29, 1925	.....2 cases
Jan. 30, 1925	.....2 cases
Feb. 1, 1925	.....2 cases
Feb. 3, 1925	.....3 cases
Feb. 5, 1925	.....1 case
Feb. 6, 1925	.....1 case
Feb. 14, 1925	.....1 case
Feb. 15, 1925	.....3 cases
Feb. 17, 1925	.....2 cases
Feb. 18, 1925	.....1 case
Feb. 19, 1925	.....1 case
Feb. 20, 1925	.....1 case
Feb. 21, 1925	.....1 case
Feb. 23, 1925	.....1 case
Feb. 25, 1925	.....1 case
Mar. 4, 1925	.....2 cases
Mar. 6, 1925	.....1 case
Mar. 7, 1925	.....Serum given
Mar. 14, 1925	.....1 case

R

BELL MEMORIAL HOSPITAL CLINICS

Clinic of Dr. J. L. McDermott

Department of Roentgenology

X-RAY EXAMINATION OF CHEST

This patient has been referred from the medical service for a chest examination. You may be interested in knowing something of the history of his case as has been recorded by the interne.

He is 40 years of age; a laborer, and was in good health until four weeks ago when he entered the hospital complaining of a

severe cold. Physical examination at that time revealed pulse 100, temperature 103, tight cough, with complaint of pain in the region of the right lung. He was put to bed and treated expectantly, and subsequent examinations revealed symptoms which the staff physician interpreted as pointing to broncho-pneumonia. During the subsequent two weeks he ran a temperature which reached its highest point, 103.5 degrees, on the eighth day of his illness. His temperature gradually subsided by lysis, and on the 16th day it was found to be normal. As his temperature subsided, the patient was disturbed by an irritating cough, followed by scanty expectoration of muco-purulent material. One week ago, or, on the 21st day of the patient's illness, he again was found with temperature which has continued since. He now complains of difficult breathing and pain in the right side of chest. Temperature at present is 101 and pulse is 96. The requisition says that the base of the right chest is dull, and that no breath sounds can be heard on auscultation.

With this brief history we shall make a fluoroscopic and skiagraphic examination for the purpose of ascertaining what changes, if any, have taken place in the lung fields. In making a fluoroscopic examination, I might suggest as a preliminary preparation, that we should remain in the dark sufficiently long to allow our pupils to become properly accustomed to the darkness before beginning the examination. If we do not do this, we may overlook some of the minute changes which may have taken place in the organic structure of the lungs.

A fluoroscopic examination should be done in a systematic way. By that I mean certain fundamental anatomical landmarks should be kept in mind, and these landmarks should be looked for and identified. If any changes have taken place such changes should be described. For example:

First. The trachea should be identified.

Second. The apices of the lungs.

Third. The aorta and heart shadows.

Fourth. The hilus shadows.

Fifth. The diaphragmatic borders, including the angles made by the diaphragm with the heart, and the angles made by the diaphragm with the peripheral borders of the chest.

Sixth. The parenchymatous structure of the lung with the peripheral lung borders.

Having identified these definite land-

marks, a detailed observation of each should be made, looking for any change or abnormality that might be present. It, therefore, behooves us to have well in mind the appearance of the normal chest, otherwise we have no standard by which to make comparisons.

Now we shall begin our examination with the patient in the erect position facing the flourescopic screen. You observe the outline of the patient's chest; you note the neck, and extending downward from the chin in a vertical plane you observe a tubular area, light in color, about three-fourths of an inch in diameter. This is the trachea. The light color is due to the fact that the trachea is filled with air, and offers little obstruction to the passage of the ray. The trachea stands out, because on each side are denser structures which interfere with the ray reaching the screen. You observe the trachea occupies a median position superimposed upon the spine.

Comparing the apices of the lungs, we find that the right shows diminished translucency, but the areation is uniform. There are no small opaque areas, or enlarged nodes, either in the right apex or in that part of the right lung field which is areated. We therefore can rule out tuberculosis. The left apex is well areated and we observe no abnormality in the left lung field.

To the left of the trachea you note a dark shadow projecting about three-fourths of an inch. This we recognize as the shadow of the aorta. Its outline is even, not sacculated, and if you follow it down you note its blending with the shadow of the heart. The heart shadow, you will observe, fills a large area of the base of the left lung field. In fact, its left border approaches the peripheral border of the left chest.

We will now look for the hilus shadows. We find no hilus shadow on the left because the shadow of the aorta and heart renders this area opaque. On the right we also see no evidence of a hilus shadow on account of an opacity which occupies the lower two-thirds of the right lung field.

Passing now to the left diaphragm you observe its convex contour, its free mobility, and the angles made by it with the left chest wall, and the angle made with the heart. We pass to the right lung base and find the diaphragm obscured by an opaque shadow.

Looking now at the right lung field you note that the entire right lung field is less

translucent than the left, and that the base of the right lung field is much higher than the left. You will note also that the base of the right lung field is concave; whereas, the base of the normal lung field should be convex. You will note that the right base does not move when the patient breathes, while the left does. Now, when the patient leans to the left, the dense meniscus on the peripheral wall of the right chest lowers, and when the patient leans to the right, it rises along the outer chest wall. This change in the position of this area is significant, and suggests fluid in the right pleural cavity. You will observe in rotating the patient that the left diaphragm is clearly visible, while the outline of the right diaphragm cannot be made out. In changing the position of the patient, you will note the heart and aortic shadows appears to be displaced to the left. We will now give him some barium to drink in order to ascertain the relation of the esophagus shadow to that of the heart and aorta. You will observe in the lower two-thirds of the chest the aorta, heart and esophagus are displaced beyond the left border of the spine. This leads us to conclude that the opaque shadow in the right lung base is responsible for the abnormal position of the heart and aorta.

In order to make further observations we will examine the patient in the supine position. You observe that there is a definite change in the appearance of the lung fields. The heart and aortic shadows appear to have receded towards the median line, and the right lung field shows the translucent area has extended nearer to the right base than it appeared in the erect position. The right lung field still shows impaired translucency as compared with the left, also the opacity at the base still extends along the peripheral borders, giving the superior border of the opacity a concave outline. You will note that the patient has been coughing since placed in the supine position. Also that the breathing is more labored, an observation which also suggests pleuritic effusion.

This concludes our fluoroscopic examination, and we will now view the skiagraphs which have been made of his chest, and formulate the conclusions of our findings. You will note that these skiagraphs show practically the identical picture which you observed on the fluoroscopic screen. By our examination we discovered pathol-

ogy in the right chest. This pathology consists of an impairment of translucency of the upper third of the right lung, and the absence of translucency of the lower two-thirds. We find that the opaque area at the base of the right lung is uniform in density and changes its shape slightly when the position of the patient is changed. We also find that the opacity appears to displace the heart and aorta to the left when the patient is erect, more than it does when the patient is in the supine position. We find that the superior border of the opacity is concave. In other words, that it appears to creep up the walls higher than the level of the center. We, therefore, conclude that this opacity is produced by fluid, and not by consolidation of the lung structure, or by growth, or lung abscess. If the lower lobes of the right lung were consolidated and no fluid present, the heart shadow, in all probability, would occupy its normal position. Also the upper border of the consolidation would conform to the superior border of the middle lobe, and would therefore not be concave. If a growth were present in the base of the right lung, its density would not be so uniform, and its outline and shape in all probability would be more or less irregular. The opacity caused by a lung abscess rarely involves more than one lobe of the lung, and it would be rather unusual to find it involving two. Frequently a lung abscess involves part of a lobe, with the remainder showing some translucency. Furthermore, a lung abscess seldom changes its shape when the position of the patient is changed. It is, therefore, quite improbable that this man has a lung abscess. You ask why the translucency of the upper part of the right lung is impaired. The answer is, that the lung is compressed by the presence of fluid in the lower part of the pleural cavity, thus partially forcing the air out of the lung cells and producing a partial collapse of the lung. We have very probably a fibrinous pleurisy involving the upper part of the pleural membranes, causing a thickening and a gluing together, perhaps, of the parietal and visceral pleura, which in a measure, confines the pleuritic effusion to the lower two-thirds of the pleural cavity. As to the nature of the fluid in the pleural cavity we are unable to give an opinion. This information can only be obtained by use of the diagnostic needle.

Clinic of Dr. Robert D. Irland

Assisted by Oscar W. Davidson, Student, Department of Gynecology

GONORRHEA OF THE FEMALE GENITAL TRACT

We have this morning a patient whose case history you have just heard read. The characteristic points in that history are as follows: She is a widow, aged 27 years, who has been employed as a waitress. For four years she has complained of hypogastric pain and tenderness, leucorrhoea, menorrhagia and dysmenorrhea. At the beginning of this trouble she had an acute attack characterized by lower abdominal pain, nausea, vomiting, fever and a profuse, thick, yellowish, muco-purulent, foul, irritating cervical discharge. After the acute phase of this attack passed she found attempts to work caused recurrence of the pelvic pain. The menstrual disturbances mentioned before have persisted.

The chief physical findings are the hypogastric tenderness, and the immobile tender mass that occupies the posterior and lateral pelvic space. These physical data considered with the history have led us to conclude that we have to deal with a uterus that has been drawn backward by a bilateral salpingitis of gonorrheal origin. We make the usual incision just a little to the right of the median line carrying the lower end down to the symphysis which gives the best possible exposure of the pelvic field. The omentum and intestine are adherent to the pelvic mass. We separate them with all possible gentleness. The uterus, tubes and ovaries are matted together by adhesions. Fortunately we have been able to separate these structures without rupturing the tubes which are sealed. The ovaries are in good condition and may be saved. The tubes must be removed and we do so by clamping the meso-salpinx, excising the tube and suturing the stump of the meso-salpinx over the clamp with a running over-and-over suture of No. 1 plain catgut. The uterus must be held forward in its normal position so we now suture the round and broad ligaments to its vesical surface after the manner devised by Coffey. We now remove the blood clots from the pelvis and close the abdominal wound in the usual manner.

DISCUSSION

Gonorrhea is a contagious catarrhal inflammation of the genital mucous membrane, usually the result of coitus and due to infection by the gonococcus of Neisser.

The incidence of gonorrhea is appalling,

representing 60 to 90 per cent of the infections of the genito-urinary tract. Statements that gonorrhea and syphilis cause more deaths than tuberculosis and pneumonia are probably not far wrong.

I desire to emphasize a few of the facts about this much neglected gynecological condition. Great progress has been made in treatment of some diseases but the treatment of gonorrhea has not been improved in several decades. In general it is what it was fifty years ago. The same germicides are used and the same failures exist. Occasionally a new drug appears such as mercurochrome or acriflavine, but after an honest trial it falls into the same unsuccessful category as silver nitrate, mercuric chloride and potassium permanganate. This lack of progress in the treatment of gonorrhea in women may be attributed to the fact that it is seldom seen in the acute stages. Men with slight urethral discharges will consult a physician early, but women with frequent and painful urination do not worry much and the disease has spread to the cervix, body of uterus and sometimes the tubes before she applies for treatment.

For convenience of description, gonorrhea in women may be classed as to external and internal invasion. The external infection extends to the internal os, involving the Bartholin glands, Skene's glands, the urethra and the racemose glands of the cervix. The internal infection involves the organs above the internal os;—the uterine cavity, tubes, ovaries and the pelvic peritoneum.

That we may better understand the pathogenesis of gonorrhea it may be well to review some of the characteristics of the gonococcus. It differs from other bacteria in many respects, being a biscuit shaped micro-organism in pairs usually found within the leucocytes and always found in the acute discharge. It is most readily affected by heat or cold, the optimum temperature being 97-98 degrees F. A sudden rise of temperature kills it. Desiccation has a markedly inhibiting effect, and a mixed infection soon overcomes and kills it. It is also readily killed by mild antiseptics. Being so non-resistant, the great question is why is gonorrhea so intractable? The answer to this question lies in a study of the tissues of the female genital tract, the mode of invasion and extension.

The glands of Bartholin are situated at the introitus of the vagina, partly or wholly covered by the sphincter vaginae muscle.

By reason of their situation, these glands are the most common harbor for the gonococcus and failure to recognize this fact causes continued unsuccessful treatment of both husband and wife. A reciprocal infection although mild, may be kept up indefinitely. Normally the glands cannot be palpated, but when infection is present they become tender and palpable and pus may be expressed from them.

Infection of the urethra may be self limited; but if Skene's tubules are involved the condition may persist indefinitely. There are two of these tubules on the floor of the urethra opening just lateral to the external meatus, supernumerary glands in this region may be the seat of infection, in intractable cases. Pain, tenderness, swelling and discharge are the evidences of infection.

Deeper seated infection is found in the cervical glands, being racemose in type and branching deeply into the cervix. An infection of this type causes turgescence of the cervix and the crypts and folds of the cervical mucosa are filled with the characteristic thick white tenacious mucus, well known as leukorrhea. This discharge may be as infectious as the gonococcus pus. The internal os as a rule is a barrier to extraneous matter that tries to enter the uterine cavity. There are times however when it relaxes and permits the vaginal contents to enter the uterine cavity.

Compared with the streptococcus and the staphylococcus the gonococcus has little power of penetration. It develops by direct extension along mucous membranes, the submucosa and frequently into the deeper tissues. In squamous epithelium few changes are produced, but in columnar epithelium the surface cells swell, are separated by inflammatory exudate and soon desquamation of epithelium occurs. The organism readily gains access to the glands, producing desquamation of epithelium, periglandular inflammation and abscess formation. In such pus pockets the organisms may indefinitely persist. They may lie dormant in the chosen habitat for varying periods of time until it becomes congested as during pregnancy, miscarriage, menstruation, puerperal infection and excessive coitus.

The endocervix is a common seat of infection. The gonococcus has a predilection for columnar epithelium. Metaplasia is the rule and the swelling and hyperemia of the cervical mucosa cause it to protrude from the external os. Endocervicitis tends to be-

come chronic. Menstruation may be disturbed in three ways, being delayed, prolonged and more profuse.

From the cervix the gonococcus travels to the tubes by way of the resistant though accommodating bridge, the endometrium. It is in the tubes that the principal and lasting havoc is wrought. Salpingitis, pyosalpinx, tubo-ovarian abscess, pelvic peritonitis and adhesions are produced, as they have been in this case.

In the discussion of the symptomatology of this infection let it suffice to say that in men acute attacks of gonorrhea are well marked by evidences of acute pain, painful micturition, general malaise and depression. They early seek medical advice and as long as the acute stage lasts religiously carry out the treatment. In women however the initial symptoms are mild, many times nothing but the purulent discharge is noticed. They do not think of medical treatment and do not care to be inconvenienced by following good advice. Often through ignorance, or indifference on the part of the physician or a sense of false pride on the part of the patient the glandular infection goes untreated.

It may be well to mention here some of the systemic complications of gonorrhea. The gonococcus has often been found in the blood stream and other regions of the body. There is little doubt that the toxins from it play a great part in the production of skin lesions, arthritis, endocarditis, bursitis, periostitis, myositis, iritis, phlebitis, pleuritis and even meningitis. To diagnosis these cases, the physician must be on guard and earnestly strive to find the focus of the systemic infection. Granting his ability to make the proper diagnosis by the clinical picture and modern laboratory methods; he must choose his line of treatment. He must consider logically the social status of his patient and the possible effect upon her of his diagnosis. But the importance of checking the infection early is so great that every effort should be made to establish the exact diagnosis. The word inflammatory covers a multitude of sins; gonorrhea need not be mentioned. The important thing is to treat the condition adequately no matter what is given as the cause.

Instructions are easily given and easily followed for the treatment of this inflammation, but the desired results are not so easily obtained.

The best conservative treatment for an acute case seen early when the symptoms are those of vulvitis, Bartholinitis, ure-

thrititis and endocervicitis is absolute rest in bed, the external douche of mild potassium permanganate, instillation of 10 per cent argyrol, a moist hot boric acid pack. Light non-irritating diet, free catharsis and plenty of water. If the Bartholin glands are palpable they should be completely excised.

For the chronic cases there is no standard treatment, and since so many of the cases in women are chronic in type it may be said there is no standard treatment for gonorrhea.

Rundle of London reports 94 successful cases out of 100 by use of contramine pessaries, a device containing sulphur, diethyl-ammonium-diethyl-thio carbonate, easily and quite agreeably handled by the patient.

MacLachlon of Derbyshire Royal Infirmary, Doederlein of India and others strongly advocate the use of diathermy. Many advocate the use of mercurochrome and acriflavine and just as many do not have success with them. Applications of zinc chloride; iodoform packs and other antiseptics have been used with and without success. Protein therapy and other non-specific means are used with favorable results. X-ray and radium are enthusiastically recommended by some workers.

Gonorrhea the world over is one of the worst scourges of man kind. Woman in most instances is the innocent sufferer. Any method of treatment aiming at the elimination of this suffering and of the need for mutilating operations should be carefully scrutinized before discarded.

—R—

HISTORY OF THE KANSAS MEDICAL SOCIETY

(Continued from Page 231)

The annual session of 1881 was held in the First Congregational Church, Topeka, May 10 and 11. There were forty-three members present at roll call on the first day and ten additional members appeared on the second day. During this session forty-one applicants were admitted to membership.

The address of the president, Dr. B. E. Fryer, was concise and practical. Among the suggestions offered was the following: "It would seem that in this great state of Kansas, which has so much intelligence among its people, that there ought to be no difficulty in obtaining the passage of a bill for this purpose (regulating the practice of

medicine) which would be eminently satisfactory to all."

And yet for twenty years the efforts of the society to secure the passage of a satisfactory law to take the place of the one which had been declared unconstitutional, were unavailing.

However, the committee to whom was referred this part of the president's address submitted the following report and resolutions which were adopted:

"Your committee to whom was referred so much of the president's address as refers to State medicine and the medical practitioners' act cordially indorse the same, and recommend the adoption of the following:

"Whereas, The State of Kansas has occupied unbroken ground upon some of the great moral questions of the age: therefore,

"Resolved, That in the opinion of this Society, she should continue in well-doing and keep abreast her sister States in making laws for the protection of her people from "the pestilence that walketh in darkness and wasteth at noonday."

"Resolved, That this Society appoint a committee of five, who shall report at its next annual meeting the form of a bill organizing a State Board of Health, and suitable laws for the protection of health and life."

Another suggestion made by the president was that members of the society strictly comply with the prohibitory law which had recently been passed. This law, it appears, required that physicians should take an oath prior to prescribing any alcoholic stimulant. This was objected to by a good many physicians. On the strength of the suggestion made by the president a committee was appointed to draft resolutions in accordance therewith. The following report was submitted by the committee:

"Your committee to whom was referred that portion of the president's address relating to the temperance law have had the same under consideration, and beg leave to unanimously report that we recommend a full compliance with the law." This report was laid on the table by a vote of 34 to 23. The objectionable requirement was either repealed or ignored by the authorities, for a few years later, at any rate, no oath was required and any prescription for whiskey signed "Dr." was accepted by the druggists.

The report of the treasurer indicated that the society had a balance on hand of \$358.00.

The following officers were elected for

the ensuing year: J. H. Stuart, Lawrence, president; G. W. Haldeman, Paola, and C. H. Guibor, Beloit, vice presidents; F. D. Morse, Lawrence, secretary; L. J. Cunkle, Madison, assistant secretary; W. W. Cochran, Atchison, treasurer.

The sixteenth annual meeting of the society was held in Emporia, May 9 and 10, 1882. In the absence of the president, Dr. J. H. Stuart, the meeting was called to order by First Vice President Dr. G. W. Haldeman. There were forty-seven members in attendance at this meeting and twenty-two applicants were admitted to membership.

The following resolution was introduced by Dr. J. Bell:

"Whereas, The American Medical Association having adopted rules of ethics for the control of the action of members of the medical profession in their relation to each other, to their patients and to the public at large, which code, in our opinion, rightly prevents and positively forbids all recognition and affiliation with quacks and charlatans who may be engaged in the practice of medicine; and

"Whereas, the New York State Medical Society having recently changed the Code of Ethics so as to enable its members and those of the regular medical profession of the State in affiliation with them to meet with persons unquestionably outside the pale of the legitimate practice of medicine; and

"Whereas, Believing that the regular system of medicine, broad as it is, affording a limitless field for scientific research and experiment, being ever ready to recognize and avail itself of any agent, form, mode or process by which the prophylaxis, or the treatment of disease, or the alleviation of human suffering, might be affected, dictated by reason, or justified by the light of intelligent experience, leaves each one of its individual members free to select for himself in the choice and application of remedial agents for the prevention and cure of disease: Therefore, be it

"Resolved, 1st, That the State Medical Society of Kansas deprecates as unwise, and denounces as unbecoming to the profession, the recent action of the New York State Medical Society, believing that such a course is calculated to prostitute the profession throughout the country, and to disgrace scientific medicine, by inducing its followers to affiliate and fellowship with quacks and charlatans of the most pronounced and specious type.

"Resolved, 2nd, That this Association, while denouncing such action, would proclaim that the regular profession of medicine in this State stand unalterably opposed to making such sacrifice under either the influence of gilded inducements or of legislative enactments; and, while they hold themselves ever ready at all times to respond to the calls of suffering humanity, they have no compromise to make in the interest of quackery, whether legalized or not, and do not propose to lower the standard of common honesty in the profession in order to gratify a depraved public sentiment.

"Resolved, 3rd, That the delegates from this Society to the American Medical Association to meet at St. Paul, Minn., be and hereby are instructed to refuse affiliation with the delegates of the New York State Medical Society until they make such amendments to their state code as will harmonize them with the national code."

A committee was appointed to consider the resolution and report. Their report, which was adopted by the society, was as follows:

"We, the committee appointed to report on the resolutions offered by Dr. Bell, beg leave to report that, though we agree with the sentiments expressed in the resolutions, we consider them rather too sweeping in their character to recommend their adoption by the Society, but would recommend that our delegate to the American Medical Association be instructed to bring the matter before that body."

The following amendment to section 3 of Article IV of the By-Laws was adopted:

"Section 3. The penalty for a violation of the Constitution, By-Laws or Code of Ethics, shall be fine, suspension, or expulsion. The Nominating Committee shall report to the Society the names of nine suitable persons as a Committee on Ethics, to whom shall be referred, without debate, all charges for violations of the Constitution, By-Laws, or Code of Ethics. The Committee shall report their decision to the Society, and said decision shall be final and not subject to debate. A compliance with Sec. 6 of the Constitution shall be necessary for suspension or expulsion. The first three on the aforesaid committee shall serve for three years, the second three for two years, and the last three for one year; and three shall be appointed annually hereafter for the term of three years.

"Anything in the By-Laws conflicting with this amendment is hereby repealed."

A Committee on Medical Law had been appointed and presented a report at this meeting. The text of the bill is not recorded but after considerable discussion of its provisions the following resolution was adopted:

"Resolved, That the bill as prepared by the committee be referred to a committee of five, who shall present it to the Legislature at its next meeting and urge the passage of the bill. That the committee be empowered to make such changes in the bill as they may deem best for the interests of public health and the profession."

A motion that a sum not to exceed \$200 be appropriated for the expense of the committee in presenting the bill to the Legislature, was carried.

The following resolutions were offered by Dr. Leary and adopted by the Society:

"Whereas, The Public Health Association, at its late session at Savannah, petitioned Congress for an act and an appropriation of money for the purpose of securing an official registration of births and deaths throughout the United States, and recognizing the great benefits to the country to be obtained by such registration:

"Resolved, That we fully indorse this measure, and urge our representatives in Congress to use their influence in securing action on the matter, and

"Whereas, The operations of the National Board of Health, since its organization, have been productive of great good to the public health, not only in the Southern States but also to the country at large, and believing that the field of usefulness of the Board of Health will be materially extended, and its efficiency increased thereby:

"Resolved, That we recommend that the membership of the Board be augmented, so that it contains one representative from each state."

Dr. W. L. Schenck offered the following resolutions which were adopted:

"Whereas, The Code of Ethics of the American Medical Association clearly defines the status of secret remedies and their vendors, viz.: 'It is equally derogatory to professional character to dispense a secret nostrum, whether it be the composition or exclusive property of himself or others. For if such nostrum be of real efficacy, any concealment regarding it is inconsistent with the beneficence and professional liberty; and if mystery alone give it value and importance, such craft implies

either disgraceful ignorance or fraudulent avarice,' (Art. I, Sec. IV); and

"Whereas, We believe in the function of all religions, whether of Confucius or Buddha, of Mohamet or of Christ, to bind back the soul to truth, to righteousness, and to beneficence; and

"Whereas, Many of the religious periodicals of the day flood their columns with the unblushing falsehoods of the vendors of secret remedies and patent medicines; and

"Whereas, We believe such advertisements do injustice to pure Christianity, and are calculated to create in the minds of medical men a disgust for religion; therefore be it

"Resolved, That as guardians of the life and health of the people, and worshippers of the God of truth, we condemn the practice by the religious periodicals of sending, commingled with the truth and beauty of Christianity, the base and unblushing falsehoods of charlatanism."

Dr. Geo. W. Haldeman, Paola, was elected president; W. S. Mendenhall, Winfield, and G. R. Baldwin, Fort Scott, were elected vice presidents; F. D. Morse and W. W. Cochran were re-elected, and J. B. Hibben, Topeka, was elected assistant secretary.

(To be continued)

—R—

Pelvimetry of the Superior Strait by Means of the Roentgen Ray

Herbert Thoms, New Haven, Conn., (*Journal A.M.A.*, July 25, 1925), states that pelvimetry of the superior strait by means of the roentgen ray has a very valuable practical, as well as a scientific, application in the practice of obstetrics. It should have a place in all obstetric clinics where teaching and classification of pelves is carried on. It has a distinct practical application in cases in which a contraction of the superior strait is suspected, or those in which there is nonengagement of the fetal head at term. In the latter circumstance, the size and shape of the fetal head must, of course, be considered.

—R—

Two cases of unilateral peripheral facial palsy are reported by P. N. Mutschmann, Calumet, Iowa (*Journal A.M.A.*, May 30, 1925). Both cases followed attacks of scarlet fever, with apparently only a moderate degree of glandular involvement, and both, after several months of apparently complete clinical recovery, have developed an intermittent paralysis of the seventh nerve on the right side.

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W. E. McVEY, M.D. - - - **Editor**

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UNJUST TAXATION

There is something askew in the economic relations of the medical profession to government. When, for instance, an occupation tax is imposed by a state or municipality upon its licensed physicians, the amount saved to the state or municipality by the gratuitous services of physicians is entirely lost sight of. Members of the medical profession pay the same tax rate as other citizens; they contribute in the same proportion as other citizens to all charity funds; and in addition thereto they care for a larger proportion of the indigent sick than does the city or the county or the state.

Presumably the Harrison Narcotic Act was intended to regulate or control the manufacture, importation, sale and use of narcotic drugs. Actually it is essentially a revenue measure—since its declared object is to provide revenue. When the tax was first imposed, the one dollar per capita which medical practitioners, dentists, and veterinarians were required to pay together with the tax upon manufacturers, dealers, etc., and the income incident to the enforcement of the law, was generally understood to provide the funds necessary for its enforcement, but the tax collected from class

4, medical practitioners, dentists and veterinarians, during the period the law has been in force, has amounted to three fourths the cost of its enforcement.

Class 4, which can by no conceivable means legally benefit by the law, those upon whom no privilege, which they did not previously have, is conferred by the law; those upon whom is placed the greatest burden of responsibility and who are constantly liable to punishment for unintentional violations of the constantly changing regulations—interpretations of the provisions of the act; those whose only point of contact with the law is in the relief of pain and suffering for which purpose a narcotic is often required; these are required to bear three-fourths of the burden of the enforcement of the act.

While the tax of one dollar was assessed upon the constituents of class 4, the amount collected from this source equalled two-thirds of the cost of administering the law. When as a war measure, for raising revenue, the tax was raised to three dollars, a considerable surplus over the amount needed to enforce the law was created.

This fact apparently did not suggest to congress the policy of reducing the tax to the pre-war basis, but the Prohibition Commissioner suggests that inasmuch as there is a surplus of income over the cost of enforcement the appropriation for enforcement should be increased to equal the amount collected.

The medical profession made no objection to the original tax of one dollar for it was understood that the funds so collected would provide for the administration of the law. They found no reason to complain of the increase to three dollars for it was understood to be a war measure to provide needed revenue. Because the individual item of tax is small there has been no concerted effort to secure its reduction although it is generally known that the funds collected are largely in excess of the requirement.

The government finds it necessary to reduce its income or increase its expenses to

prevent accumulation of surplus in the treasury. In this particular department of the government's activities, the concerted action of the medical profession may have some influence in determining whether the tax upon class 4 shall be put upon its pre-war basis.

A casual review of the general reports concerning the consumption of narcotic drugs in this country may lead one to the conclusion that the efforts of the government to control the traffic in these drugs have been futile and that they have made no impression upon the number of addicts nor the spread of addiction, but rather have offered an incentive to the lawless element to engage in the very profitable though illicit trade in narcotic drugs. One might even say that the medical profession is being taxed to maintain a considerable number of people in more or less lucrative positions in connection with a hopelessly futile understanding.

PREMATURE PUBLICITY

Publicity naturally must play a large and important part in any campaign to "educate the people" so that they will be able to distinguish between scientific medicine and the pretensions of the various cults. That publicity, unless it is carefully censored by the conservative men in the profession, is likely to do as much harm as good, has been demonstrated on several occasions by the premature announcement of the results of scientific research. The newspapers, with a predilection for the sensational, usually magnify the importance of any findings that have any bearing upon well known diseases.

Recently a cable message to the American Press announced the discovery in England of the cause of cancer. The cable message was received here on July 12, but the report of Gye and Barnard appeared in the *Lancet* of July 18.

From the premature newspaper accounts of the "discovery" the people were led to believe that the mystery of cancer had been solved and that its definite cure was imminent.

The report when it appeared in the *Lancet* indicated that another, and perhaps very important step had been made in the investigations that have been prosecuted for many years. It appears to be the completion of some research work begun by Rous about fifteen years ago on chicken sarcoma, but has as yet added nothing to our knowledge of the cause of cancer in the human.

From a statement issued by the managing director of the American Society for the Control of Cancer the following is quoted: "What has been discovered in England is apparently the causative agent of a particular kind of tumor in certain animals. This is a long way from furnishing ground for the opinion that cancer in human beings is due to the same or a similar parasite, or, in fact, to any microorganism whatever. Still more remote is the possibility that the discovery will lead to the preparation of a specific cure for the disease called cancer."

That the conclusions made from the research conducted by Gye and Barnard may be premature is suggested in their note appended to the report published in the *Lancet* in which they say: "Our belief that the small bodies seen and photographed are the actual virus depends partly upon the fact that control uninoculated tubes of medium have been invariably blank, and partly upon the correspondence between the microscopical findings and the results of experiments upon animals. This correspondence—allowing for the real difficulties in both parts of the common task—has been so close that, although final proof has not been attained, we are convinced that our conclusions are sound. By final proof we mean the cultivation of the virus from a single colony, or if possible from a single spheroid, and the production of a tumor with the culture thus obtained. This work has been under consideration for a long time, and will be attempted when circumstances permit."

That further experiments are needed to confirm the conclusions drawn from the re-

ports seems to be generally conceded, though there seems to be some difference of opinion as to just what significance should be attached to the discoveries should they be confirmed. The editor of the *Lancet* is perhaps naturally among the more optimistic and in the issue of July 25 says: "The whole problem is being steadily cleared up. The demonstration by E. F. Bashford and his colleagues that something may pass out from a carcinoma cell which induces the neighboring connective tissue to become sarcomatous, is one landmark; the discovery of the Rous chicken tumors was a second; the production of tar cancer by Yamagiwa and Ishikawa was a third. The present discoveries push the experimental study of the cause of cancer a great deal further and reasonably encourage us to hope that the fundamental facts may soon be reflected in human experience.

"Throughout the communications published last week in the *Lancet* both authors regarded their work as requiring in many places confirmatory evidence, and obviously other experiments must be done in certain directions before more than tentative opinions can be formed."

CHIPS

It is very necessary to confine patients to bed for considerable periods in some conditions; and it sometimes requires a good deal of careful treatment to cure them of the bed habit.

"Honesty is the best policy" was the way Cervantes put it. He did not mean that one should tell all he knew just because it happened to be the truth. He certainly did mean one should not lie just in order to have something to say.

The death rate caused by hookworm disease in the Bilibid prison, Philippines, used to average about 240 out of every 1,000 cases; now only thirteen out of every thousand die. To whom should the credit be given?

Clinical teachers and especially pathologists find it necessary to continually stress the fact that **laboratory tests** are only aids to diagnosis. One might suggest that a year of rural practice would be of more

benefit to the recent graduate that a year in the hospital, at least it would give him a different view point.

"The opinion of a careful observer, the result of the reflection of the earnest, intelligent worker, is of more real value to our profession than the ideas of many who have written into fame by book making, based as the latter often is on little or no self-experience." Extract from the address of the president of the K. M. S. at its annual meeting in 1881.

The Katharometer heretofore has been used in tests of the respiration of flies. The instrument is used to determine the purity of the air during respiration, the amount of CO in it. The instrument is direct reading and very sensitive to certain gases having different thermal conductivities from one another. The doctor of the next generation will have to haul a trailer to carry his instruments with him in order to make a diagnosis at the bedside or the patient will have to be transported to a central depot where the paraphernalia is located, to sound him out.

The promiscuity with which drugs are now administered intravenously warrants some careful investigation as to the tolerance of the veins to irritants. The council on pharmacy and chemistry has consistently opposed the intravenous administration of drugs, such as sodium iodid, whose systemic effects are readily obtained when administered by mouth. At any rate it may be well to go cautiously until there is definite assurance that the veins are invulnerable by chemical irritations.

In an article on "Appendectomy" that appeared in the July number of the *Archives of Surgery*, Roeder claims that pathological adhesions follow at least 85 per cent of appendectomies and result from trauma, infection and improper peritoneal coating. The uncovered mesenteric stump, if not retracted behind the cecum, is as frequent a source of adhesions as the uncovered sterilized appendix stump. The inverting suture is likely to penetrate the cecal mucosa and become contaminated.

In cases where it is difficult to give an intra-venous injection in the arm, Benedek suggests that the external jugular be used. The patient lies horizontally in an operating chair with the head turned to one side so that the jugular comes in view over the sternocleidomastoid muscle. The patient

is told to press, the mouth being closed, and the vein appears as large as a pencil. He claims to have used this method for years and has never had any difficulty with it.

Jaworski believes—and says he proves—that rejuvenation is a matter of new blood. His method is to examine an old person's blood. Then he selects several young people and examines their blood. When he finds in the blood of one of the young the same reaction as that of his patient he takes four or five c.c.'s of the new blood and injects it in the old person's veins. Rejuvenation follows. He claims that none of his many experiences have failed. Goat and monkey stock won't be worth a scrap of paper. It will be on a par with hair-pin manufacturers' paper. "The world do move," and medical science keeps trailing.

Haynes reports some favorable results from the intravenous use of mercurochrome in tuberculosis, in the Bulletin of the University of Oklahoma School of Medicine. From 5 to 10 c.c. of a one per cent solution is given twice a week. There has been a rise of temperature which continued for some time after the medicine was discontinued. There was observed a marked lessening of cough, sputum and malaise and an increase of appetite, sleep and weight. It was also noted that pleuritic pains disappeared and breathlessness was relieved. On bacteriological examination it was found that in every case there was a decrease in the number of tubercle bacilli.

The results in the few cases from which these observations were made do not justify the promiscuous use of mercurochrome in tuberculosis, but it will do no harm to try its effect on selected cases.

The effect of liver extract administration on blood pressure was studied in thirty-three cases. In these cases hypertension had persisted for varying periods. Physiological sodium chloride solution of extract of the liver was injected intravenously. Twenty-five patients experienced no disagreeable symptoms, most of them reported apparent relief. In eight cases there were reactions of varying degree, some of which resembled protein shock. There was an average fall in the systolic pressure of 62 mm., and an average fall in diastolic pressure of 28 mm. Investigations are under way to determine the constituent or constituents of liver responsible for the effect on blood pressure. The clinical value of liver extracts will depend, not

only on the development of a stable and uniform extract, but also on the permanence of the fall in pressure and its relation to other pathologic changes existing in the body. (*Jr. A.M.A., July 18, '25*).

The significance of a hormone elaborated by the parathyroid structures for the metabolism of calcium, at least so far as the relation of the content of this element in the blood is concerned, seems to be well established. The promise of preparing an effective parathyroid product seems about to be fulfilled in various places. The publications of Hanson in 1923 show that he was actively engaged in the extraction of an active product. Since then success had attended the investigation of Fisher and Larson and particularly those of Collip. Both Collip and Fisher and Hanson warn against the possible dangers of unwarranted therapy with potent preparation, for symptoms of atonia depression, diarrhea and dyspnea are readily produced by large doses of a potent preparation. (*Jr. A.M.A., July 11, '25*.)

— R — DEATHS

Dr. Frances A. Cady, for years a physician of Hutchinson, died July 19th at a local hospital. She was born in New York state in 1858 and came to Rice County in the early '70's settling near Little River. She was graduated from the Kansas City Hahneman Medical College in 1903.

Dr. Eli M. Hoover, of Halstead, died July 10th at the age of 74. Dr. Hoover was born August 25th, 1850, at Mexico, Indiana. He graduated in 1885 from the National University of Arts and Sciences at St. Louis, Mo. He practiced for a number of years at Royal Center, Indiana, before coming to Halstead. Dr. Hoover was mayor of Halstead for four years and was a member of the State Board of Health for six years.

Dr. Winfield Scott Harvey, of Salina, died at his home July 18th. He graduated from the University of Illinois College of Medicine, Chicago, 1885. Dr. Harvey came to Kansas from Quincy, Ill., where he first practiced his profession and located in McPherson where he resided for 10 years. He gave up active practice about a year ago. Dr. Harvey was a member of the Saline County and Golden Belt Societies.

Dr. James F. Preston, of Effingham, died at his home in Effingham July 12th. Dr. Preston was born in 1849 at Camden Point,

Missouri. He was graduated from the Medical Department of the University of Louisville in 1892. He was formerly located at Arrington, Kansas, but for the past 35 years has been located at Effingham.

PERSONALS

Dr. Milton Hahn, of Arkansas City, has sold his practice to Dr. E. W. Hellwig and has gone back to Washington, D. C., to specialize in pediatrics.

Dr. C. L. Zugg, of Arkansas City, has gone on his regular summer vacation to Colorado, expecting to return about September 1st.

Dr. Charles Dunning, of Arkansas City, has gone on his annual summer outing and fishing trip to Port Jervis, N. Y., and other seaport towns.

Dr. E. F. Menger, of the Chilocco Indian Schools, is away for thirty days taking a P. G. course at Colorado.

Dr. John Ekblad, who formerly practiced at Scandia, now located at Duluth, Minnesota, is visiting his parents at Manhattan.

Dr. W. F. Bowen, of Topeka, and Dr. B. F. Morgan, of Clay Center, are on an extended motor trip through northern Minnesota.

Dr. M. S. Gregory, who has been practicing medicine in Dighton for the past two years, left the middle of July for New York City where he will take post graduate work in Columbia.

Dr. E. C. Carhart, of Hutchinson, will leave the first of September for Hollywood, California, where he will enter St. Vincent's hospital as anesthetic specialist.

Dr. Herman Goodman of New York City has moved his office to 18 East 89th street.

Program Inter-State Post Graduate Assembly of America, St. Paul, Minn., October 12th, 13th, 14th, 15th and 16th, 1925

General headquarters for all scientific sessions and exhibits: St. Paul Auditorium.
Hotel headquarters: St. Paul Hotel.

FIRST DAY

MONDAY, OCTOBER 12TH.—7 A. M.

1. Diagnostic Clinic (Medical).—Diseases of the blood or heart cases. Dr. Charles S. Williamson, Professor of Medicine, University of Illinois College of Medicine, Chicago, Illinois.

2. Diagnostic Clinic (Surgical).—Dr. William S. Baer, Associate Professor of Orthopedic Surgery, Johns Hopkins University Medical Dept., Baltimore, Md.

3. Diagnostic Clinic (Oto-laryngology).—Dr. Hanau W. Loeb, Dean and Professor of Ear, Nose and Throat Diseases, St. Louis University School of Medicine, St. Louis, Missouri.

INTERMISSION—REVIEW EXHIBITS

4. Diagnostic Clinic (Surgical).—Dr. E. Starr Judd, Professor of Surgery, Minnesota Graduate School of Medicine, Rochester, Minnesota.

5. Diagnostic Clinic (Surgical).—(a) Non-specific lung suppuration, such as bronchiectasis or bronchiectatic abscess of the lung in combination with a patient suffering from pulmonary tuberculosis. (b) Cancer of the esophagus, breast, thromboangiitis obliterans, cholecystitis with or without stones. Dr. Willy Meyer, Professor of Surgery, New York Post-Graduate School of Medicine, New York, N. Y.

AFTERNOON SESSION.—1 P. M.

6. Diagnostic Clinic (Medical).—Arterial hypertension, diseases of the heart and kidney. Dr. Elsworth S. Smith, Professor of Clinical Medicine, Washington University School of Medicine, St. Louis, Missouri.

7. Diagnostic Clinic (Surgical).—General surgical cases. Dr. Arthur M. Shipley, Professor of Surgery, University of Maryland School of Medicine, Baltimore, Maryland.

8. Diagnostic Clinic (Surgical).—Dr. George J. Heuer, Professor of Surgery, University of Cincinnati, College of Medicine, Cincinnati, Ohio.

9. Diagnostic Clinic (Medical).—Dr. William J. Kerr, Associate Professor of Medicine, University of California, San Francisco, California.

10. "Chronic Infections of the Skull."—Dr. Charles B. Lyman, Professor of Clinical Surgery, University of Colorado, School of Medicine, Denver, Colorado.

11. "The Management of the Ordinary Anemias."—Dr. Charles S. Williamson, Professor of Medicine, University of Illinois College of Medicine, Chicago, Illinois.

INTERMISSION.—REVIEW EXHIBITS.

12. Subject later.—Dr. William S. Baer, Associate Professor of Orthopedic Surgery, Johns Hopkins University Medical Dept., Baltimore, Md.

13. Subject later.—Dr. C. J. MacGuire, Jr., New York, N. Y.

14. "The Anatomic Relation of the Optic Nerve to the Para-Nasal Sinuses."—(Slides).—Dr. Hanau W. Loeb, Dean and Professor of Ear, Nose and Throat Diseases, St. Louis University School of Medicine, St. Louis, Missouri.

EVENING SESSION.—7 P. M.

15. "Pernicious Anemia."—Dr. Edward W. Montgomery, Professor of Medicine and Clinical Medicine, University of Manitoba Faculty of Medicine, Winnipeg, Canada.

16. "The Treatment of Cicatricial Contractures of the Neck."—Dr. Charles N. Dowd, Professor of Clinical Surgery, Columbia University School of Medicine, New York, N. Y.

17. "The Diagnosis and Treatment of Heart Disease."—Dr. William J. Kerr, Associate Professor of Medicine, University of California, San Francisco, California.

18. Subject later.—Dr. E. Starr Judd, Professor of Surgery, Minnesota Graduate School of Medicine, Rochester, Minnesota.

INTERMISSION.—REVIEW EXHIBITS.

19. "Examination of Para-Nasal Sinuses With Clinical Demonstrations and Radiographs."—Dr. Cornelius G. Coakley, Professor of Laryngology and Otology, Columbia University School of Medicine, New York, N. Y.

20. "Newer Methods of Preliminary Medication and General Anesthesia."—(Slides).—Dr. James T. Owathmey, New York, N. Y.

21. "The Preparation and Use of Thick Skin Grafts."—(Slides).—Dr. Harry P. Richie, Associate Professor of Surgery, University of Minnesota Graduate School of Medicine, St. Paul, Minnesota.

SECOND DAY

TUESDAY, OCTOBER 13TH.—7 A. M.

1. Diagnostic Clinic (Laryngology).—Dr. Cornelius G. Coakley, Professor of Laryngology and Otology, Columbia University School of Medicine, New York, N. Y.

2. Diagnostic Clinic (Surgical). Neck cases, especially T. B., bronchial cysts or fistulae thyroglossal cysts, or fistulae hygromas.—Dr. Charles N. Dowd, Professor of Clinical Surgery, Columbia University School of Medicine, New York, N. Y.

3. Diagnostic Clinic (Medical). Bone, cardio-vascular, blood or gastro-intestinal cases.—Dr. Joseph Sailor, Professor of Clinical Medicine, University of Pennsylvania, School of Medicine, Philadelphia, Pa.

INTERMISSION.—REVIEW EXHIBITS.

4. Diagnostic Clinic (Surgical). Cranial

and general surgical cases.—Dr. Samuel Clark Harvey, Associate Professor of Surgery, Yale University School of Medicine, New Haven, Conn.

5. Diagnostic Clinic (Surgical). Upper abdominal cases.—Dr. John B. Deaver, Professor of Surgery, University of Pennsylvania School of Medicine, Philadelphia, Pa.

AFTERNOON SESSION.—1 P. M.

6. Diagnostic Clinic (Diabetic).—Dr. Rollin T. Woodyatt, Clinical Professor of Medicine, Rush Medical College, Chicago, Illinois.

7. Diagnostic Clinic (Surgical). Surgery of the face and various parts of the body.—Dr. Allen B. Kanaval, Professor of Surgery, Northwestern University School of Medicine, Chicago, Illinois.

8. Diagnostic Clinic (Medical).—Heart and lung cases.—Dr. Edward J. Beardsley, Associate Professor of Medicine, Jefferson Medical College, Philadelphia, Pa.

9. "The Role of Operative Surgery in the Treatment of Pulmonary Tuberculosis." (slides).—Dr. Willy Meyer, Professor of Surgery, New York Post-Graduate School of Medicine, New York, N. Y.

INTERMISSION.—REVIEW EXHIBITS.

10. "Hypertension."—Dr. James H. Means, Professor of Clinical Medicine, Harvard University School of Medicine, Boston, Mass.

11. "Observations on the Gall Bladder."—Dr. Frank Boland, Professor of Surgery, Emory University School of Medicine, Atlanta, Georgia.

12. "Thoracic Suppurations."—Dr. Arthur N. Shipley, Professor of Surgery, University of Maryland, School of Medicine, Baltimore, Maryland.

13. "Pyloric Stenosis."—Dr. E. E. Francis, Professor of Surgery, University of Tennessee, School of Medicine, Memphis, Tennessee.

EVENING SESSION.—7 P. M.

14. "The Treatment of Cardiac Syphilis."—Dr. Harlow Brooks, Professor of Clinical Medicine, University and Bellevue Hospital Medical College, New York, N. Y.

15. "Plastic Surgery."—Dr. Allen B. Kanaval, Professor of Surgery, Northwestern University School of Medicine, Chicago, Illinois.

16. "Heliotherapy as an Adjunct in the Treatment of Chronic Surgical Conditions."—Dr. George J. Heuer, Professor of Surgery, University of Cincinnati, College of Medicine, Cincinnati, Ohio.

17. "Further Studies Concerning the Injurious Effects of Arterial Hypertension on the Cardio-Vascular Renal Apparatus."—Dr. Elsworth S. Smith, Professor of Clinical Medicine, Washington University School of Medicine, at St. Louis, Missouri.

INTERMISSION.—REVIEW EXHIBITS.

18. "The Relation of the Human Constitution to Diseases."—Dr. George Draper, New York, N. Y.

19. Subject later.—Dr. Milton J. Rose-nau, Professor of Preventive Medicine and Hygiene, Brookline, Boston, Mass.

20. "Drainage as a Factor in Renal Disease."—(Slides).—Dr. Guy L. Hunner, Associate Professor of Gynecology, Johns Hopkins University School of Medicine, Baltimore, Maryland.

THIRD DAY

WEDNESDAY, OCTOBER 14TH.—7 A. M.

1. Diagnostic Clinic (Medical).—Cases of cardiac syphilis, cardiac decompensation, lung tumor or abscess, acute rheumatic fever, angina pectoris, chronic nephritis.—Dr. Harlow Brooks, Professor of Clinical Medicine, University and Bellevue Hospital Medical College, New York, N. Y.

2. Diagnostic Clinic (Gynecology).—Dr. Guy L. Hunner, Associate Professor of Gynecology, Johns Hopkins University School of Medicine, Baltimore, Maryland.

3. Diagnostic Clinic (Psychiatry).—Dr. Thomas W. Salmon, Professor of Psychiatry, Columbia University School of Medicine, New York, N. Y.

INTERMISSION.—REVIEW EXHIBITS.

4. Diagnostic Clinic (Medical).—Hypertensive diseases.—Dr. James H. Means, Professor of Clinical Medicine, Harvard University School of Medicine, Boston, Mass.

5. Diagnostic Clinic (Surgical).—Cases of rheumatism or rheumatoid arthritis.—Dr. Charles H. Mayo, Mayo Clinic, Rochester, Minnesota.

AFTERNOON SESSION.—1 P. M.

6. Pathological Conference supervised by Dr. H. E. Robertson, Professor of Pathology, University of Minnesota, (Mayo Foundation), Rochester, Minnesota.

7. Diagnostic Clinic (Medical). Cardio-Vascular diseases or diseases of the blood.—Dr. Maurice C. Pincoffs, Professor of Medicine, University of Maryland School of Medicine, Baltimore, Maryland.

8. "Familiar Problems in Gynecology."—Dr. William P. Graves, Professor of

Gyneecology, Harvard University School of Medicine, Boston, Mass.

9. "Diphtheria and Its After Effects."—Dr. H. B. Cushing, Clinical Professor of Pediatrics, McGill University Faculty of Medicine, Montreal, Canada.

INTERMISSION.—REVIEW EXHIBITS.

10. "Duodenal Ulcer versus Cholecystitis."—Dr. John B. Deaver, Professor of Surgery, University of Pennsylvania School of Medicine, Philadelphia, Pa.

11. "Some Recent Revelations of the Denervated Heart."—Dr. Walter B. Cannon, Professor of Physiology, Harvard University School of Medicine, Boston, Mass.

12. "The Significance of Arterial Hypertension."—Dr. Wilder Tileston, Clinical Professor of Medicine, Yale University School of Medicine, New Haven, Conn.

13. "Carcinoma of the Rectum."—Dr. Alfred T. Bazin, Professor of Surgery, McGill University Faculty of Medicine, Montreal, Canada.

EVENING SESSION.—7 P. M.

14. "The Diagnosis of Abdominal Tumors."—(Slides).—Dr. Joseph Sailer, Professor of Clinical Medicine, University of Pennsylvania School of Medicine, Philadelphia, Pa.

15. "The Liver and its Function in Relation to its Surgical Diseases."—Dr. Samuel Clark Harvey, Associate Professor of Surgery, Yale University School of Medicine, New Haven, Conn.

16. "Renal and Ureteral Stones."—Dr. Edward L. Keyes, Professor of Clinical Surgery, Department of Urology, Cornell University School of Medicine, New York, N. Y.

17. "Post-Graduate Instruction in Our Own Offices."—Dr. Edward J. Beardsley, Associate Professor of Medicine, Jefferson Medical College, Philadelphia, Pa.

INTERMISSION.—REVIEW EXHIBITS.

18. "Osteotomy of the Os Calcis for extreme cases of Flat Foot."—(Slides).—Dr. John P. Lord, Professor of Orthopedic Surgery, University of Nebraska School of Medicine, Omaha, Neb.

19. "Treatment and Prognosis in Pericarditis."—Dr. Maurice C. Pincoffs, Professor of Medicine, University of Maryland School of Medicine, Baltimore, Maryland.

20. "Modern Medical Education—Progress or Retrogression."—Dr. Eugene E. Murphey, Professor of Medicine, Univer-

sity of Georgia School of Medicine, Augusta, Georgia.

FOURTH DAY

THURSDAY, OCTOBER 15TH.—7 A. M.

1. Diagnostic Clinic (Surgical).—Renal and ureteral stone cases.—Dr. Edward L. Keyes, Professor of Clinical Surgery, Department of Urology, Cornell University School of Medicine, New York, N. Y.

2. Diagnostic Clinic (Pediatric). Rheumatic fever and after effects in children of school age.—Dr. H. B. Cushing, Clinical Professor of Pediatrics, McGill University Faculty of Medicine, Montreal, Canada.

3. Diagnostic Clinic (Surgical). Acute abdominal lesion cases.—Dr. Alfred T. Bazin, Professor of Surgery, McGill University Faculty of Medicine, Montreal, Canada.

INTERMISSION.—REVIEW EXHIBITS.

4. Diagnostic Clinic (Surgical.) — Dr. Arthur Dean Bevan, Professor of Surgery, Rush Medical College, Chicago, Illinois.

5. "The Five Most Important Obstetrical Mistakes."—Dr. Joseph B. DeLee, Professor of Obstetrics, Northwestern University School of Medicine, Chicago, Illinois.

AFTERNOON SESSION.—1 P. M.

6. Diagnostic Clinic (Medical). Abdominal diseases, especially liver.—Dr. Wilder Tileston, Clinical Professor of Medicine, Yale University School of Medicine, New Haven, Conn.

7. Diagnostic Clinic (Surgical). Management of cases of prostatic obstruction. Dr. Hugh Cabot, Professor of Surgery, University of Michigan School of Medicine, Ann Arbor, Michigan.

8. "Pneumococcus Peritonitis." — Dr. Charles L. Gibson, Professor of Surgery, Cornell University School of Medicine. New York, N. Y.

9. "Focal Infection."—Dr. Charles H. Mayo, Mayo Clinic, Rochester, Minnesota.

INTERMISSION.—REVIEW EXHIBITS.

10. "The Aetiology of Anaemia and Its Importance in Diagnosis and Treatment." —Dr. Duncan A. L. Graham, Professor of Medicine, University of Toronto, Faculty of Medicine, Toronto, Canada.

11. "A Re-study of Operations for Radical Cure of Hernia, Including Inguinal, Femoral, Umbilical, Post-operative Hernias Associated with Undescended Testis and Diaphragmatic Hernia."—Dr. Arthur Dean Bevan, Professor of Surgery, Rush Medical College, Chicago, Illinois.

12. Subject later.—Mr. Philip Franklin, F. R. C. S., London, England.

13. Subject later.—Dr. Thomas W. Salmon, Professor of Psychiatry, Columbia University School of Medicine, New York, N. Y.

EVENING SESSION.—7 P. M.

14. "The Relative Roles of Surgery and of Radiation in the Treatment of Tumors of the Breast."—(a) Dr. F. E. Bunts, Professor Principles of Surgery and Clinical Surgery, Western Reserve University School of Medicine, Cleveland, Ohio.

(b) Dr. U. V. Portmann, Cleveland Clinic, Cleveland, Ohio.

15. "Joint Ankylosis—Surgical Measures for its Prevention and Relief."—Dr. Nathaniel Allison, Professor of Orthopedic Surgery, Harvard University School of Medicine, Boston, Mass.

16. "The Physiology of the Female Pelvic Floor."—Dr. Ernest F. Tucker, Professor of Gynecology, University of Oregon School of Medicine, Portland, Oregon.

17. "Syphilis and Its Relation to Eye Diseases."—Dr. William H. Wilder, Professor of Ophthalmology, Rush Medical College, Chicago, Illinois.

INTERMISSION.—REVIEW EXHIBITS.

18. "Diagnosis of Diseases of the Rectum."—Dr. L. J. Austin, Professor of Surgery, Queen's University Faculty of Medicine, Kingston, Canada.

19. Subject later.—Dr. James E. Thompson, Professor of Surgery, University of Texas School of Medicine, Galveston, Texas.

20. Subject later.—Dr. Arthur A. Law, Associate Professor of Surgery, University of Minnesota Graduate School of Medicine, Minneapolis, Minn.

FIFTH DAY

FRIDAY, OCTOBER 16TH.—7 A. M.

1. Diagnostic Clinic (Surgical). Abdominal and gastro-intestinal cases.—Dr. Charles L. Gibson, Professor of Surgery, Cornell University School of Medicine, New York, N. Y.

2. Diagnostic Clinic (Surgical). Joint involvement, particularly cases of suspected tuberculosis of either the knee, hip or other joints.—Dr. Nathaniel Allison, Professor of Orthopedic Surgery, Harvard University School of Medicine, Boston, Mass.

3. Diagnostic Clinic (Medical). Cases of cardiac lesions or signs of interference with cardiac function.—Dr. J. C. Meakins, Professor of Medicine and Director of the

Department, McGill University Faculty of Medicine, Montreal, Canada.

INTERMISSION.—REVIEW EXHIBITS.

4. Diagnostic Clinic (Surgical).—Dr. George W. Crile, Professor of Surgery, Western Reserve University School of Medicine, Cleveland, Ohio.

5. Diagnostic Clinic (Medical). Cases of anaemia and mediastinal tumor.—Dr. Duncan A. L. Graham, Professor of Medicine, University of Toronto Faculty of Medicine, Toronto, Canada.

AFTERNOON SESSION.—1 P. M.

6. Diagnostic Clinic (Surgical). Cases of anaemia.—Dr. William J. Mayo, Mayo Clinic, Rochester, Minnesota.

7. Diagnostic Clinic (Surgical).—Sir William Arbuthnot Lane, Bt., London, England.

8. Pathological Conference supervised by Dr. H. E. Robertson, Professor of Pathology, University of Minnesota (Mayo Foundation), Rochester, Minnesota.

9. "Circulatory Failure in Heart Disease."—Dr. J. C. Meakins, Professor of Medicine and Director of the Department, McGill University Faculty of Medicine, Montreal, Canada.

INTERMISSION

10. "The Cause and Prevention of so-called Catheter Cystitis and Retention of the Urine."—Dr. Hugh Cabot, Professor of Surgery, University of Michigan School of Medicine, Ann Arbor, Michigan.

11. "The Treatment of Gastric Ulcer."—(a) "Indications for and the Technique of Dissection of the Stomach for Ulcer."—Dr. George W. Crile, Professor of Surgery Western Reserve University School of Medicine, Cleveland, Ohio.

(b) "The Medical Treatment of Peptic Ulcer."—Dr. John Phillips, Assistant Professor of Therapeutics, Western Reserve University School of Medicine, Cleveland, Ohio.

(c) "The Patient versus His Lesion."—Dr. George W. Crile, Cleveland, Ohio.

12. "The Association of Lesions of the Bone Marrow, the Liver and the Spleen in Certain Blood Dyscrasias."—Dr. William J. Mayo, Mayo Clinic, Rochester, Minnesota.

FOREIGN GUESTS

Sir William Arbuthnot Lane, London, England.

Mr. William Blair Bell, F. R. C. S., Professor of Obstetrics and Gynecology, University of Liverpool Medical Dept., Liverpool, England.

Professor Vittorio Putti, Bologna, Italy.
Mr. Philip Franklin, F. R. C. S., London, England.

Dr. H. L. McKisack, Consulting Physician, Royal Victoria Hospital, Belfast, Ireland.

Dr. W. H. Parkes, C. M. G., C. B. E., Auckland, New Zealand.

BANQUET

Addresses by distinguished citizens from America and foreign countries.

—R—

Preliminary Program for Missouri Valley Medical Society, September 30th, October 1 and 2

University of Nebraska, Medical College

1. "Complications of Brain Surgery."—Dr. J. J. Keegan, Dean of University College of Medicine.

2. "The Technique of Cervical Sympathectomy."—(Illustrated).—Dr. John Summers, Professor of Surgery.

3. (Title not yet received.)—Dr. W. O. Bridges.

4. "Study of a Case of Membranous Bone, with Autopsy."—(Slide).—Dr. A. D. Dunn, Professor of Experimental Medicine.

5. "Cancer."—By Dr. H. E. Eggers, Professor of Pathology.

Kansas University, Medical Department

1. "Relation of Food Infection to Myocardial Degeneration."—Dr. P. T. Bohan, Professor of Clinical Medicine.

2. "The Present Status of Hypertension."—Dr. R. H. Major, Professor of Medicine.

3. "Kidney Function Test."—Dr. N. F. Ockerblad, Assistant Professor of Genito-Urinary Diseases.

University of Missouri, Columbia

Symposiums on Internal Secretions

1. "Oxygen Supply and Metabolic Level."—Charles W. Greene, Ph. D., Columbia, Mo.

2. "Factors Affecting the Action of the Pancreatic Hormone."—Max. M. Ellis, Ph. D., Columbia, Mo.

3. "Internal Secretion of Ovaries."—Edgar Allen, Ph. D., Columbia, Mo.

4. "Thyroid and Metabolic Perversions."—Dr. Walter M. Boothby, Mayo Foundation, Rochester, Minn.

1. "The Periodic Medical Meeting."—Dr. E. H. Skinner, Kansas City.

Attending Staff, Washington Boulevard Hospital, Chicago, Ill.

1. "Urological Findings in 100 Cases of Obscure Abdominal and Pelvic Pain."—Dr. V. J. O'Connor.

2. "X-Ray Interpretations."—Dr. A. R. Metz.

3. "Electro-cardiograph Interpretations."—Dr. S. R. Slaymaker.

4. "Fracture of Femurs With Special Reference to Neck."—Dr. H. F. Lounsbury.

5. "Angina Pectoris."—Dr. Robert H. Babcock.

Des Moines, Iowa

1. "Heredity."—Dr. Julius S. Weingart.

2. "Group of Papers on Anesthesia."—Dr. John Russell and Dr. John Connell.

3. "Goitre Clinic."—Dr. Charles Ryan.

4. "Clinic on Dermatology."—Dr. J. F. Auner.

5. (Not received).—Dr. W. O. King.

Symposium on Fractures

1. "Conservative Treatment of Fractures of Long Bones in Children."—Dr. Thomas Orr, Kansas City.

2. "Fracture of the Carpal Bones."—Dr. P. A. Bendixen, Davenport.

3. "Fracture of Elbow."—Dr. J. A. Weinberg, Omaha, Neb.

4. "General Discussion of the Fracture Problem."—Dr. D. Z. Dunett, Baltimore, Md.

Mornings—Dry Clinics by St. Joseph Clinicians. Afternoons—Symposia.

Complete program will be issued early next month. A copy may be obtained by addressing the secretary, Dr. Charles Wood Fassett, 115 East 31st Street, Kansas City, Mo.

—————R—————

Fitter Families Eugenic Competition

According to an announcement in the premium book recently issued a Fitter Families Eugenic Competition will be held during the Kansas Free Fair at Topeka, September 14 to 19. This will be conducted under the auspices of the Eugenic Society of the United States of America by its National Committee on Fairs, of which Dr. Florence Brown Sherbon of Lawrence is a member and superintendent for Kansas.

The purposes and procedures are fully outlined in the following extract from the premium book.

Object. To apply the well-known principles of heredity and scientific care which have revolutionized agriculture and stock breeding to the highest order of creation—the human family.

Method: First. Study family heredity by recording all the known facts about the three immediate generations in such a way as to show inheritance of traits and furnish the basis of a permanent family history.

Second: Examine the parents and the children. The results are recorded, with written summary and advice.

This examination covers nine units: intelligence tests; nervous and mental tests; structural measurements; medical examinations; eye, ear, nose, throat; dental; laboratory examination of urine and blood; health habits.

The Staff: The examinations are made by a staff of 18 or 20 professional people who give their services because of their interest in promoting the eugenic and health interests of the citizens of Kansas. Among the co-operating agencies and individuals may be mentioned: The State Board of Health; the University of Kansas; The State Teachers' College of Emporia; The Kansas State Agricultural College; Southwestern College of Winfield, The Topeka Y. M. C. A. and Y. W. C. A.; the Topeka hospitals; the Lattimore Laboratories of Topeka; a large number of private physicians, specialists and nurses.

Rules: Both parents and children must present themselves for examination. Grandparents, aunts and uncles may also be examined if desired.

Single young adults of 18 or over will be given the entire examination and receive a copy of the record. This serves as a basis for estimating present physical and mental fitness and also gives the individual a basis for determining fitness to marry, and means of studying his or her own heredity.

Childless married couples may also be examined, when time permits. Preference will be given to families and marriageable young adults.

There is no entry fee. This service is offered as a demonstration of the value and importance of family records and periodical health examinations.

Appointments must be made in advance of the examination. Applicants should write to the superintendent as far in advance as possible, stating preference of day.

The examinations are given in the Eugenics building. They are private and winners of trophies and medals only are announced.

Scores: Individuals are examined and scored separately by each examiner. The average of these units gives the individual score. The average of individual scores gives the family score.

Awards: Trophies. Each family attaining the standards set by the Eugenics Society of U. S. A. will receive a Fitter Family Trophy.

The winning family in classes 3792, 3793 and 3794 will receive trophies presented by former Governor Henry J. Allen.

Medals: Each individual averaging B plus or A and who does not make any score below B, will receive a bronze medal given by Senator Arthur Capper.

Certificates: Every individual will receive a Health Certificate A, B or C from the State Board of Health.

Records: The original copy of the history and examinations will be given to the family or individual.

Eligibility: This is a eugenic and health examination, therefore no one obviously defective or out of health will be admitted.

No medical advice or treatment is given, but each individual is advised as to how to improve the general health, and also told if he may be benefited by medical advice or treatment.

DIVISION 366—HUMAN STOCK

Class 3790, Single individuals: Young adults, 18 years or over.

Class 3791, Pair: Engaged couples; childless married couples.

Class 3792, Small family: Parents, one child.

Class 3793, Average family: Parents, two to four children.

Class 3794, Large family: Parents, five or more children.

Exhibit: An exhibit featuring the points in heredity and health which are covered in the Fitter Family examination will be displayed.

"Kansas Grows the Best Wheat in the World"; let us prove that she also "grows the best people in the world."

—R—

Harrison Narcotic Law and the Practice of Medicine

(*Linder v. United States (U. S.), 45 Sup. Ct. Rep. 446*)

The Supreme Court of the United States, in reversing a judgment which affirmed a conviction of defendant Linder of violating the Harrison Narcotic Law and in remanding the cause for further proceedings, says that, in effect, the indictment alleged that the accused, a duly registered physician, violated the statute by giving to a known addict four tablets containing morphin and cocain with the expectation that she would administer them to herself in divided doses, while unrestrained and beyond his presence or control, for the sole purpose of relieving conditions incident to addiction and keeping

herself comfortable. The indictment did not question the physician's good faith, nor the wisdom or propriety of his action according to medical standards. It did not allege that he dispensed the drugs otherwise than to a patient in the course of his professional practice or for other than medical purposes. The facts disclosed indicated no conscious design to violate the law, no cause to suspect that the recipient intended to sell or otherwise dispose of the drugs, and no real probability that she would not consume them.

The declared object of the narcotic law is to provide revenue, and this court has held that whatever additional moral end it may have in view must "be reached only through a revenue measure and within the limits of a revenue measure." Congress cannot, under the pretext of executing delegated power, pass laws for the accomplishment of objects not entrusted to the federal government. Obviously, direct control of medical practice in the state is beyond the power of the federal government. Incidental regulation of such practice by congress through a taxing act cannot extend to matters plainly inappropriate and unnecessary to reasonable enforcement of a revenue measure. The enactment under consideration levies a tax, upheld by this court, on every person who imports, manufactures, produces, compounds, sells, deals in, dispenses or gives away opium or coca leaves or derivatives therefrom, and may regulate medical practice in the states only so far as reasonably appropriate for or merely incidental to its enforcement. It says nothing of "addicts" and does not undertake to prescribe methods for their medical treatment. They are diseased and proper subjects for such treatment, and this court cannot possibly conclude that a physician acted improperly or unwisely or for other than medical purposes solely because he has dispensed to one of them in the ordinary course, and in good faith, four small tablets of morphin or cocain for relief of conditions incident to addiction. What constitutes bona fide medical practice must be determined on consideration of evidence and attending circumstances. Mere pretense of such practice, of course, cannot legalize forbidden sales, or otherwise nullify valid provisions of the statute, or defeat such regulations as may be fairly appropriate to its enforcement within the proper limitations of a revenue measure.

The opinion in *United States v. Behrman*, 257 U. S. 280, 287, 42 S. Ct. 303, cannot be

accepted as authority for holding that a physician, who acts bona fide and according to fair medical standards, may never give an addict moderate amounts of drugs for self-administration in order to relieve conditions incident to addiction. Enforcement of the tax demands no such drastic rule, and if the act had such scope it would certainly encounter grave constitutional difficulties.

The narcotic law is essentially a revenue measure, and its provisions must be reasonably applied with the primary view of enforcing the special tax. This court finds no facts alleged in the indictment sufficient to show that the accused had done anything falling within definite inhibitions or sufficient materially to imperil orderly collection of revenue from sales. Federal power is delegated, and its prescribed limits must not be transcended even though the end seems desirable. The unfortunate condition of the recipient certainly created no reasonable probability that she would sell or otherwise dispose of the few tablets entrusted to her; and this court cannot say that by so dispensing them the physician necessarily transcended the limits of that professional conduct with which congress never intended to interfere. (Jr. A.M.A., Aug. 1.)

BOOKS

1924 Collected Papers of the Mayo clinic and the Mayo foundation, Rochester, Minnesota. Octavo of 1331 pages, 254 illustrations. Philadelphia and London: W. B. Saunders Company, 1925. Cloth, \$13.00 net.

This is the sixteenth volume of collected papers from the Mayo Clinic and contains all papers from the Clinic and Foundation for the year 1924. These are republished in full or in abstract or in some instances by title. It is of course an interesting collection and the book becomes exceedingly valuable as a reference book. It is impossible to mention all of the subjects discussed and equally impossible to select the most interesting ones for particular mention.

Modern Surgery, general and operative, by J. Chalmers Da Costa, M.D., LL.D., F.A.C.S. Samuel D. Gross, professor of surgery, Jefferson Medical College, Philadelphia, ninth edition, revised and reset. Octavo of 1527 pages with 1200 illustrations, some in colors. Philadelphia and London. W. B. Saunders Company, 1925. Cloth, \$10.00 net.

When a book has reached a ninth edition there is not much to say about it except that it has been revised with the idea of

keeping it up to date. The author mentions the difficulties under which this work was completed but so far as one can see the book has not suffered. Some of the older chapters have been omitted, such as surgical bacteriology, antiseptics and asepsis, bandaging, etc., but it seems to contain all that is required for a complete text on general surgery.

The Surgical Clinics of North America (issued serially, one number every other month). Volume V. Number II (New York Number, April, 1925). 337 pages with 105 illustrations. Per clinic year (February, 1925, to December, 1925). Paper, \$12; cloth, \$16, net. Philadelphia and London. W. B. Saunders Company.

The April number of the Surgical Clinics is the New York number in which both Pool and Erdmann have clinics in which a large number of cases with a considerable variety of surgical diseases are prescribed. Willy Meyer and Albee also have each presented numerous cases. There is also a series of clinics from the Woman's Hospital in which a considerable variety of surgical diseases of women and operations are discussed. There are also clinics by Heyd, Stookey, Stetton, Eggers, VanKauer, Farr and Fries, and several clinical reports from the Presbyterian Hospital.

Abt's Pediatrics, by 150 specialists, edited by Isaac A. Abt, M.D., professor of diseases of children, Northwestern University Medical School, Chicago. Set complete in eight octavo volumes totaling 8,000 pages with 1,500 illustrations, and separate index volume free. Now ready, volume VII containing 879 pages with 70 illustrations. Philadelphia and London. W. B. Saunders Company, 1925. Cloth, \$10.00 per volume. Sold by subscription.

The seventh volume of Abt's Pediatrics begins with the physiology of the nervous system of early life and follows with discussions of cerebral palsies, surgery of the head and spine, chorea, familial and congenital diseases of the central nervous system, convulsions in infancy and childhood, neuroses, head shaking and nystagmus in infants, hydrocephalus, thrombosis of the cerebral sinuses, brain parasites, abscess of the brain, tumors of the brain, acute poliomyelitis. Under one chapter is discussed multiple neuritis, the neuralgias, herpes Zoster, growing pains, spasms, polymyositis progressive myositis ossificans, ischemic muscular paralysis and muscle contractions, tumors of the nerves. Under another chapter is discussed the anatomy and physiology of the spinal cord and various affections of the spinal meninges and cord. Separate chapters are devoted to the lepto-

meningitides internal hemorrhagic pachymeningitis of infancy, the psychopathology of childhood, defects of speech of congenital or developmental origin, the sexual life of the child.

The Surgical Clinics of North America (issued serially, one number every other month). Volume V, Number III (Mayo Clinic Number, June, 1925). 260 pages with 115 illustrations. Per clinic year (February, 1925, to December, 1925). Paper, \$12; cloth, \$16 net. Philadelphia and London. W. B. Saunders Company.

In the June number of the Surgical Clinics which is the Mayo Clinic number there is an article by Wm. J. Mayo on filtration phenomena in relation to clinical medicine and one by Chas. H. Mayo on ulcer of the stomach and duodenum. Judd, Parker and Morse present a discussion of urinary and prostatic calculi. Myerding discusses the surgical treatment of chronic lesions of the bone. Pemberton discusses the technical difficulties in surgery of the thyroid. Bollman reports some experimental observations on glucose as a therapeutic agent. There are also contributions by Balfour, Henderson, McCarty, New, Sistrunk, Mason, Mann, Adson, Harrington and Plankers, Hunt and Herbst, Bumpus and Scholl, Buie, Lillie and Anderson, Walters, Gipner, Lundy.

The Medical Clinics of North America (issued serially, one number every other month). Volume IX, Number I (St. Louis Number, July, 1925). Octavo of 275 pages with 67 illustrations. Per clinic year (July, 1925, to May, 1926). Paper, \$12; cloth, \$16 net. Philadelphia and London. W. B. Saunders Company.

Engelbach has first place in the July number of the Medical Clinics, in which he presents some studies on hair growth and pigmentation. This is not only a very interesting article but contains some very important information. McKim Marriott discusses the subject of hydrocephalus and Veeder, the mentally defective infant child. Soper has a very interesting article on the dietetic management of cardio vascular renal disease. Hartmann discusses the subject of diabetes in infants and children with illustrative cases. There are also clinics by McCulloch, Graves, Zahorsky, Schwab, Brady, Olmstead, Barnes, Hempelmann, Lyter, Baumgarten, Luten and McMahon.

—R—

Diagnosed

"Well, my boy, what am I to cure you of?" asked the doctor.

"Why," was the explanation, "bof of my eyes is rainin' an' one of my noses won't go."

Mechanics of Back Strains

Z. B. Adams, Boston (*Journal A.M.A.*, July 25, 1925), reviews the mechanics of the joints in the different regions of the spine, in order to show the effect of the shift of their relative positions to one another, on the stress brought on the ligaments, and thus to show where strains usually occur. The region of the spine in which the strains most commonly occur is the low cervical region. Strains in the thoracic spine are not common. This region is well braced by the ribs. When there are severe distortions, as in scoliosis and in Pott's disease, occasionally there is pain due to strain; but when the deformity develops slowly and is constant, there is surprisingly little pain. At the dorsolumbar junction, one of the most limber spinal sections, there are frequent strains, chiefly in the round and hollow-backed type of person. There are but few cases which show symptoms that can be attributed to the midlumbar spine. The ability to hold the back in the best position to avoid strain certainly depends, to a large degree, on how the body trunk is poised on the feet, knees and hips. First of all, patients should be shod properly, so that the weight is not thrust down on the heads of the metatarsal bones. This does not mean alone the avoidance of high heels, but it means a shoe long enough to avoid pressure of the vamp seam on the metatarsal shafts and heads, preventing their being raised. It means no cramping of the toes. The weight should be carried on the foot in good position, with the arch of the foot held up, and the leg rotated outward, so that the pivots of the knee and ankle are in the same plane; the knees straight, not in hyperextension. This allows the trochanters to be held back and the femoral necks to approach the pelvis, with the normal, forward inclination of 15 degrees, and this forward push props the acetabula upward and forward, and diminishes the possibility of backward tilt of the hip bones and pelvis as a whole. The proper treatment of these back strains involves getting the muscles into condition. At the same time, patients should be trained to stand in the proper position, so that their bones support the weight. The muscles hold them there. When the ligaments have been torn, it is analogous to a sprained ankle, or when badly stretched, to a chronic flat foot, and the cure is not always an easy or rapid process to accomplish. In the acute cases, of

low back strain, a surprising amount can be accomplished by adhesive strapping on the skin, to bind the gluteal muscles together and prevent the backward tilting of the pelvis. In the severe cases in which real damage has been done, and the ligaments have to shorten and repair, braces and corsets must be used; but one should not lose sight of the importance of developing the muscles, the anterior abdominal wall, the psoas and glutei, as well as the quadratus lumborum and erector spinae, and get the skeletal frame into the position in which it can support the weight at the best mechanical advantage. When the back symptoms seem to have developed as the result of a congenitally defective fifth lumbar vertebra, locking of this section of the spine by bone-graft or fusion is necessary to get permanent relief.

—R—

The Effects of Hepatic Extracts on High Blood Pressure

Ralph H. Major, Kansas City, Kan., (*Journal A.M.A.*, July 25, 1925) has found that liver extracts are much more potent in reducing blood pressure, both in experimental hypertension and in hypertension in man, than the other organ extracts studied. After considerable experimentation with various methods of extraction, he has obtained an extract that has a marked depressor effect in arterial hypertension, contains a very small amount of protein, and possesses no toxicity in the doses employed. It is prepared from an alcoholic liver mash by a process of alcoholic fractionation, the active substance appearing as a precipitate when an alcoholic concentration of approximately 90 per cent is reached. This precipitate is dissolved in distilled water and may be further purified by treatment with absolute alcohol, ether and chloroform. In the concentration employed in this work it contains no recognizable amounts of cholin, histamin or peptone, and its pharmacologic action differs in most respects from that of these three substances. The dose that we have employed therapeutically usually has no marked depressor effect on the normal blood pressure of healthy persons. Major has treated forty-two patients with the liver extract. The extract has been administered intravenously, intramuscularly and subcutaneously. The effect is more prompt after intravenous injection but is also obtained after intramuscular and subcutaneous injections. The immediate effects of this extract are striking. Within

one hour after injection the blood pressure usually falls, the extent of the fall varying from 20 to 50 or even 70 mm. of mercury. This fall is gradual and as a rule unaccompanied by any symptoms, although occasionally patients who have had a very marked and rapid fall complain of slight dizziness. The duration of this fall varies with the patient. In some patients the fall persists only from two to three hours, while in many patients it apparently persists for twenty-four hours and sometimes for several days. Several patients, after receiving from eight to ten doses of the extract, have had a fall in blood pressure which persisted for one week or more. No toxic effects from the treatment appeared in any patient. The extract produces a very slight burning on injection, which is no more uncomfortable than any type of hypodermic medication. These observations indicate that such a preparation has an undoubted immediate effect on the high blood pressure in arterial hypertension and, when repeated treatments are employed, apparently produces a more lasting fall in blood pressure.

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Acquired Tolerance of Gonococci in Culture to Mercurochrome-220 Soluble

Clarence C. Saehof, Chicago (*Journal A.M.A.*, April 25, 1925), found that the lethal dose of mercurochrome-220 soluble for the strains of gonococcus used increases after cultivation of the gonococcus on a medium containing mercurochrome. Consequently, acquired tolerance of the gonococcus for mercurochrome was demonstrated in the test tube.

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In the last number of the *Archives of Surgery*, Barker reports the microscopic findings in a series of thyroid glands into which absolute alcohol had been injected. In a summary of his conclusions he states that alcohol injected in the thyroid gland produces a local coagulation necrosis and the extent of gland destruction is in proportion to the amount of alcohol injected, so that by repeated injections the active gland tissue may be reduced to the amount desired. He believes that his experiments warrant the conclusion that the injection of absolute alcohol in suitable quantity in thyroid disease in which the use of boiling water has been suggested and used is a safe and legitimate method and is recommended as an operative procedure in thyroid surgery.

Cavernous Sinus Thrombosis

The case by Sydney K. Beigler and Mark J. Bach, Madison, Wis. (*Journal A.M.A.*, July 11, 1925), gave very little evidence, either direct or presumptive, of an infectious etiology. It is quite apparent from the physical findings that the condition commenced with thrombosis of the right cavernous sinus. There was little if any evidence from the temperature, blood count, blood culture or history that this thrombosis was of infectious etiology. To the contrary, a severe diabetic condition, together with marked malnutrition and dehydration, pointed to a primary thrombosis of the sinus, with these factors as etiology. The progressive course of the involved areas indicated an extension of the thrombotic process to include first the left cavernous sinus and then probably through the inferior petrosal sinuses, the sigmoid and lateral sinuses.

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Variations in the Acidity of Different Parts of the Gastric Residuum

The result presented by Roger S. Hubbard and Samuel A. Munford, Clinton Springs, N. Y. (*Journal A.M.A.*, May 23, 1925), were obtained in the following way: Each patient swallowed the small stomach tube, and, as soon as the operator was sure that the tip was in the stomach, fractions were immediately removed: First, with the patient in the sitting position, as much material as possible was withdrawn; then, with the patient lying on his right side, another specimen was taken which again contained as much fluid as could be evacuated; the procedure was repeated with the patient on his left side and, lastly, on his back. This gave a total of four specimens for study, except in those cases, and they were fairly numerous, in which either the stomach was completely emptied before all specimens were obtained, or in which the tube became clogged. A test meal was then given, and a fractional analysis carried out. While the results show more constancy than do some of those obtained after a test meal had been given, still in many cases there were marked variations in the concentration of hydrochloric acid in the different fractions. The maximum difference was 43 c.c of tenth normal hydrochloric acid per hundred cubic centimeters. The differences were smaller when acid concentrations were low, a condition reported by various observers who have carried out similar studies after test meals; but in only six of the seven-

teen sases in which hydrochoric acid was absent in one specimen was it absent from all. One of these six showed an absence of hydrochloric acid in a complete fractional test, but in the others it was found after the meal had been given. There do not appear to have been any significant resemblances or differences with the patients in different positions. While the results tend to support the criticisms of fractional analysis that have recently been advanced, there are certain facts that must be borne in mind. The results do show that values obtained in routine gastric tests carried out in the usual manner should not be accepted as final. Duplicate studies should be sought in as many cases as possible, especially in those in which the results do not correspond with the ones which the physician expects from the clinical findings.

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American Board of Otholaryngology

An examination was held by the American Board of Otolaryngology on May 26, 1925, at the Medico-Chirurgical Hospital, Philadelphia, with the following result: Passed, 137; failed, 20; total examined, 157.

The next examination will be held at the University of Illinois School of Medicine on October 19, 1925. Applications may be secured from the secretary, Dr. H. W. Loeb, 1402 South Grand Boulevard, St. Louis, Mo.

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The new plant of the Abbott Laboratories, pictured below, and now nearly ready, will be, when occupied, the finest complete pharmaceutical and research plant in the world. Here the newest synthetic, medical chemicals are made in large quantities by improved processes, insuring purity and accuracy. Here also are extracted from the crude drugs the medicinal principles used largely throughout the pharmaceutical industry as well as by the medical profession.



Larger quarters will be provided for the extensive research work now being carried on by a large staff of chemists and new buildings are being provided for the manu-

facture of the well-known Abbott pharmaceutical specialties.

The administrative office of The Abbott Laboratories, located for many years in Ravenswood, will be moved about October 1st of this year to the new plant. The post-office address will be Waukegan, Ill., 25 miles north of Chicago on the C. & N. W. R. R. About 24 acres of ground are owned by the Abbott Company to provide for the future expansion of their business.

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The Effect of Ultraviolet Rays

The effect of ultraviolet rays on varying concentrations of the follicular hormone has been determined by Edgar Allen and M. M. Ellis, Columbia, Mo. (*Journal A.M.A.*, July 11, 1925). It was found that exposure to ultraviolet rays in air destroys both the ovarian hormone and the placental hormone, and further, that the action is on the hormones rather than on the oil used as a solvent. The positive test is a 1.3 dilution of the irradiated extract in the second series and the two indeterminate tests of irradiated residues in the third series indicate that the destruction of these hormones is gradual rather than sudden. This destruction of these hormones by the ultraviolet rays may possibly be associated with some oxidative change, as it is well known that ultraviolet rays promote the oxidation of some substances and also the molecular oxygen is partly transformed by ultraviolet rays into ozone.

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The Alleged Synergism of Magnesium Sulphate and Morphin

It has been shown by Harry Beckman, Milwaukee (*Journal A.M.A.*, Aug. 1, 1925), in his preliminary studies of ether-oil colonic anesthesia per se described in this paper that one can invariably induce anesthesia in dogs by this method if these three factors are adjusted properly: 1. The dose of the ether-oil. 2. The interval of time elapsing between the injection of the morphin and the introduction of the ether-oil. 3. The dose of the morphin. If Factors 2 and 3 are employed at their points of optimum effectiveness and Factor 1 at something less than that point; or if Factors 1 and 2 are employed at their optimum points and Factor 3 is modified, one has two very accurate means of studying the definite amount of sedation accomplished by morphin in the experimental arrangement used here. Also one is enabled to study the ability of an other drug to increase the effective-

ness of morphin by adding it to such doses of morphin as have been previously shown to accomplish less than the definite amount of sedation. In other words, it is an acceptable method for the study of the alleged synergism of magnesium sulphate and morphin. That this synergism does not exist, Beckman believes is shown by the experiments herein described, in the following ways: 1. When all the conditions for inducing the anesthesia were optimum, except for a reduction in the amount of ether, the addition of magnesium sulphate failed to affect the conditions; i. e., failed to raise the sedative power of the morphin. 2. When all the conditions for inducing the anesthesia were optimum except for a reduction in the amount of the morphin, the addition of magnesium sulphate failed to affect the conditions; i. e., failed to raise the sedative power of the morphin. 3. When magnesium sulphate and ether were coincidentally present, a characteristic symptom of distress (howling) occurred. This symptom was always present unless morphin had been given in full effective dose. The presence of the magnesium sulphate did not enable smaller doses of morphin to overcome this symptom; i. e., it failed to raise the sedative power of the morphin.

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Lesions of the Extremities Associated With Diabetes Mellitus

A series of fifty-two cases of diabetes mellitus with associated lesions of the extremities has been observed by Frederick A. Collier and Phil L. Marsh, Ann Arbor, Mich. (*Journal A.M.A.*, July 18, 1925). The cases were unselected and represent 8 per cent of all cases of diabetes mellitus seen during this time. As an outstanding fact, all the patients in the entire group had mild diabetes of long standing. In no case had there been adequate treatment, and glycosuria had been uncontrolled throughout the course of the disease. In fact the very mildness of the disease was responsible for its neglect by both patient and physician. It was only with the advent of visible complications that the patients came for treatment. All these patients presented lesions in the lower extremity, and none had significant lesions in the upper extremity. Of these patients, eight, all women, had ulcers that had not responded to local treatment. All of them had definite varicose veins, which were thought to be responsible for the ulcers. It is of interest to note that the knee-jerks were present in all but two

of the patients. Under dietetic treatment, the ulcers healed promptly with a continuation of the same type of local treatment that had failed previous to the institution of the diet. In twenty-four cases, infection was the initial event. The portal of entry was through some break in the skin, of a corn, a crack in a callus, all trauma of a minor nature in an unwashed foot. From here the infection spread slowly or rapidly. There were twenty cases of gangrene; five of these cases were complicated by infection. The authors direct attention to the fact, however, that not all lesions of the extremities associated with diabetes mellitus are gangrene. The use of insulin aids treatment of the types with infections by preventing coma and abolishing glycosuria. The prognosis is still grave in the group in which there are both impaired circulation and infection.

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Electrocoagulation and Radiation Therapy in Malignant Disease of the Ear Nose and Throat

Electrocoagulation in the treatment of malignant disease of the ear, nose or throat according to George E. Pfahler, Philadelphia (*Journal A.M.A.*, Aug. 1, 1925), will have only a very limited field of application. Electrocoagulation consists in the destruction of the disease by coagulation of the tissues. The heat is caused by the resistance in the tissues to the flow of the high frequency electricity. It differs from the destruction by cautery; it is not a transmitted heat, but is heat generated in the tissues and extends to a greater depth than that of the cautery. It destroys all kinds of tissue in its path, and, therefore, cannot be used where blood vessels, nerves, bone or other essential tissues must be preserved. It is a painful procedure and must be used with either local or general anesthesia. If the area to be destroyed is supplied by large blood vessels, these arteries must be ligated in advance for fear of a secondary hemorrhage, when the slough separates. There is always a sloughing process which will continue for several weeks or months, until all the dead tissue has been thrown off. If bone has been destroyed, it will suppurate, and generally separate as a sequestrum. Electrocoagulation can be used wherever the cautery can be applied and often also in very small areas where only a single wire can be introduced. It must be used under the guidance of the eye, and much skill is required in order that the tissue may

be destroyed to the proper depth. Tissue can be destroyed by plunging the needle to any depth, but this demands skill, experience and an accurate knowledge of anatomy. Radiation, on the other hand, has been used extensively with good results. Radiation can be used to advantage preceding operation, following operation or independent of operation, and should always be used in conjunction with electrocoagulation.

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Relation of Calcium Content of the Spinal Fluid to Postlumbal Puncture Headache

Marcus Neustaedter, W. W. Hala and Alexander Tolstouchow, New York (*Journal A.M.A.*, Aug. 1, 1925), have examined 133 fluids and, in order not to influence the results, no particular diets were ordered. All punctures were made in the afternoon. The fluids were absolutely free from blood and tested twenty-four hours after puncture; from 3 to 5 c.c. was used for analysis. In fifty-nine normal fluids the average calcium content was 5.8 mg. per hundred cubic centimeters. In estimating the average calcium in the male and female patients of the total 133 fluids examined, a lower amount was found in the female than in the male, namely, 5.94 mg. for the male and 5.59 mg. for the female. The lowest calcium content was 1.2 mg. and the highest, 9.2 mg., with a total average for all the 133 fluids of 5.52 mg. In comparing the low, high and average calcium content of the spinal fluids of the various pathologic states, it is noteworthy that in cases of chorea the average was 4 mg., far below the average normal, and in brain neoplasms and abscess it was far above the average normal; namely, 6.71 mg. In no case was there a total absence of calcium in the spinal fluid. There seems to be no relation between the calcium content and the pathologic condition of the fluid or of the patient, with the possible exception of cases of chorea, brain tumors and abscess, as compared with the findings in the normal fluids. The amount of calcium in spinal fluids of patients suffering from postpuncture headache, while slightly less than the average normal, is not significant in any sense of the cause of headache, since patients with as low amounts as 1.2, 2 and 2.4 mg. per hundred cubic centimeters have not suffered any discomfort after puncture, and in none of these cases was the fluid under pressure, and they had no headache before. In the series of cases in which the calcium did

temporarily relieve headache, in all probability the same results would have been obtained with other means, as was shown in control cases.

—R—
Mercury Rubs

It has been pretty clearly demonstrated that the mercury that is rubbed into the skin is absorbed from the sebaceous glands and hair follicles, and to some extent from the sweat glands. What is left on the skin after the rubbing is over is of no service, and cleanliness suggests that it be thoroughly washed off with benzene or other solvent.

What the physician, convinced of the practicability of mercurial medication by way of the skin, is particularly interested in is an ointment that can be used with some degree of scientific exactness, and one that does not advertise the patient's misfortune to his acquaintances. Parke, Davis & Co. are offering little cakes or blocks of cacao butter containing metallic mercury, which they call Mercurettes, and which the patient can conveniently carry with him, on occasion subdividing them into halves or quarters for use. Each Mercurette contains 50 grains of mercury, uniformly distributed throughout the mass. See advertisement in this issue.

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Pathologic Changes in Lung From Use of Mercurochrome-220 Soluble

In order to determine the effect of mercurochrome, H. J. Corper, Denver (*Journal A.M.A.*, July 25, 1925), gave a series of twenty-one dogs intratracheal injections of mercurochrome in concentrations of from 0.01 to 2 per cent. Distinct pathologic changes were produced, which persisted for as long as four days, in concentrations as low as 0.1 per cent. The pathologic changes produced acute hemorrhagic concentrations to a pronounced acute hemorrhagic pneumonia with focal abscess formation and tissue necrosis in the higher (1 and 2 per cent) concentrations. Resolution may occur as in acute lobar pneumonia, or there may result a proliferative pneumonitis with granulation and scar tissue formation. The mercurochrome seemed to exert in vivo a preservative effect, especially on the erythrocytes, as is evidenced by their slow disintegration in the affected areas. Corper also determined the effect of mercurochrome on the normal pleura and the contiguous lung parenchyma. A series of eight dogs was given right side intrapleural injections of mercurochrome.

Distinct pathologic changes were produced in concentrations as low as 0.1 per cent. In the lower concentrations (0.1 per cent), there resulted a transient dry fibrinous pleurisy, while in the higher concentrations (dilutions of from 0.5 to 2.0 per cent), there occurred hemorrhagic pleural exudates and acute hemorrhagic pneumonia, resembling that occurring after the intratracheal injection of like solutions of mercurochrome. Recognizing the ready aspiration of fluids from the trachea into the terminal respiratory divisions (alveoli) of the lungs, it would seem inadvisable to treat pulmonary conditions, and especially tuberculous cavities, by means of injections of mercurochrome. Likewise, the treatment of empyemas, either acute or tuberculous, by means of mercurochrome in concentrations exceeding 0.1 per cent is advised against, not only on account of the action of the drug on the pleura, but also because of its coincident pulmonary effect, which occurs following the intrapleural administration of the mercurochrome.

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Marriage and Social Diseases

A recent report of the Vienna Marriage Consultation Bureau, a sub-department of the municipal public health service, shows that 18.7 per cent of the persons applying to the Bureau for information and advice are infected with a venereal disease. The Bureau upon recent completion of two years of evidently successful service is of the opinion that the value of the service rendered by it is in the dissemination of proper information concerning venereal diseases and the serious danger of marriage in such cases. In the United States, according to the U. S. Public Health Service, seven states require a medical certificate before marriage and fourteen states, while without such a requirement, have laws which aim to prevent venereal disease infection through marriage.

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FOR SALE—Physicians's all-steel adjustable operating chair-table, white enamel, like new. Price reasonable. Dr. Frank Kerr, Perth, Kans.

FOR SALE—Victor High Frequency Machine, in good condition. First check for \$100.00 takes it. Athol Cochran, M. D., Pratt, Kans.

FOR SALE—Good practice in Southern Kansas town of 800 population. Good territory and little competition. Large payroll. Will sell office equipment. Write C. H. D., Care Journal.

A GRADUATE of a class A. medical school desires to substitute for some general practitioner during August. N. P. Sherwood, M.D., 1801 Indiana St., Lawrence, Kansas.

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Eugenics

B. F. MORGAN, M.D., Clay Center, Kansas
Read at the Annual Meeting of the Kansas Medical Society at Topeka, May 6-7, 1925.

"Eugenics" is the science which deals with all influences that improve the inborn qualities of a race.

This is the principle to which the breeder of horses, cattle, sheep, hogs and chickens devotes all his energy and ingenuity. The perfection of this principle is the dream of the man who devotes his energy to the perfection and improvement of potatoes, apples, pears, strawberries, peas and beans. The pinnacle of accomplishment of the man who endeavors to improve the rose, chrysanthemum, carnation and all the lovely flowers which delight the eye and enrapture our very beings with their fragrance. The success of all these endeavors depends upon the securing of the best blood in these different lines.

We certainly admire the men who by their intelligence, persistency, devotion and unceasing effort have won both laurels and our commendation along the lines just mentioned—but what of the human race? Burbank, by ingenuity, reasoning and unceasing endeavor, evolves a new and improved variety of potato and every raiser of "spuds" in this country must have seed at any cost. Larue, by cross grafting, produces a new, beautiful and fragrant variety of rose, and every hot house in the country must have a slip. Some one discovers a new variety of iris and sells a bulb for \$100.00 but what of the Human Race? The sage has told us that "the noblest study of mankind is Man" yet man is the only living, walking, creeping thing on the face of the earth who is being wholly neglected.

Eugenics has reference to offspring in the human race. The success of a marriage should be measured by the number of disease-resisting and good blooded offspring which come from it. Three million children are born annually in the U. S. 600,000 of these die before they reach the age of one year and 1,000,000 will die before they reach their 20th year, leaving only a part of the remaining 2,000,000 to assist in

forming a united, law abiding, effective and productive nation. Of these 50,000 will be ineffective through sickness; 10,000 will be required for care of them in institutions. Unknown thousands will be kept in poverty and squalor through mental deficiency; other thousands will become criminals and many thousands be required to control the weak and unruly.

Our country's crime cost is \$10,000,000,000 per year, is $2\frac{1}{2}$ times the total receipts of 1923, three times the national budget of the same year; more than three times the customs and internal revenue receipts, and twelve times the total cost of our army and navy combined. A congressional survey of institutions for the care of feeble minded, insane, inebriates, criminals and chronically diseased in the U. S. discloses that while foreign born make up 14.7 per cent of our people, they furnish 21 per cent of the entire number of our criminals. Literacy figures in the same report show that 67 per cent of total illiteracy in our cities is among foreign born.

The last official enumeration, that of 1920, shows 94,000,000 white folk in the U. S., only 58,000,000 were of native birth. This shows us that more than one third of the whites in this country are foreign born or of foreign born parentage. Of the 36,000,000 not of native born parentage, 14,000,000 are foreign born, and of these 8,000,000 (more than half) have not become citizens; they remain alien, they share in the benefits of a residence in America, but are unwilling to share in the duties of American citizenship.

The same census shows that the 25,000,000 native born citizens in our cities are outnumbered by 26,000,000 who are of foreign born parentage and of foreign birth, including 10,000,000 alien born. Fourteen hundred foreign language newspapers, printed in 40 different languages, foster the alien racial solidarity of these groups, and set up barriers against Americanization by encouraging and perpetuating foreign customs and alien prejudices.

Secretary of Labor Davis says: "Foreign countries are anxious to keep at home their

young, robust men to maintain their man power and will only permit the departure of the old, infirm and diseased. I was frankly told by a high official of one country in Europe that his country was interested in immigration to the U. S. in so far as it helped to dispose of the old men and rub-bish."

The American Legion Weekly (of May 23rd and 30th) contains an article entitled, "The Other End of the Bridge." This will show how easy it is for the diseased criminals, mentally incompetent and wholly undesirable to gain admission into our U. S. This country supports 700,000 feeble minded, insane, blind and deaf, 100,000 prisoners, 120,000 paupers at over 150 million dollars per year.

The state should control the propagation of the mentally and physically incompetent. Both men and women should be required to furnish a certificate of mental and physical worth issued by a commission appointed for that purpose before they are allowed to marry. Parents of illegitimate children should be considered as criminals and treated as such. This country should establish commissions in all countries from which immigrants are allowed to come, and each proposed immigrant be compelled to furnish a certificate issued by this commission as to his mental and physical fitness to become a citizen of this country and in this

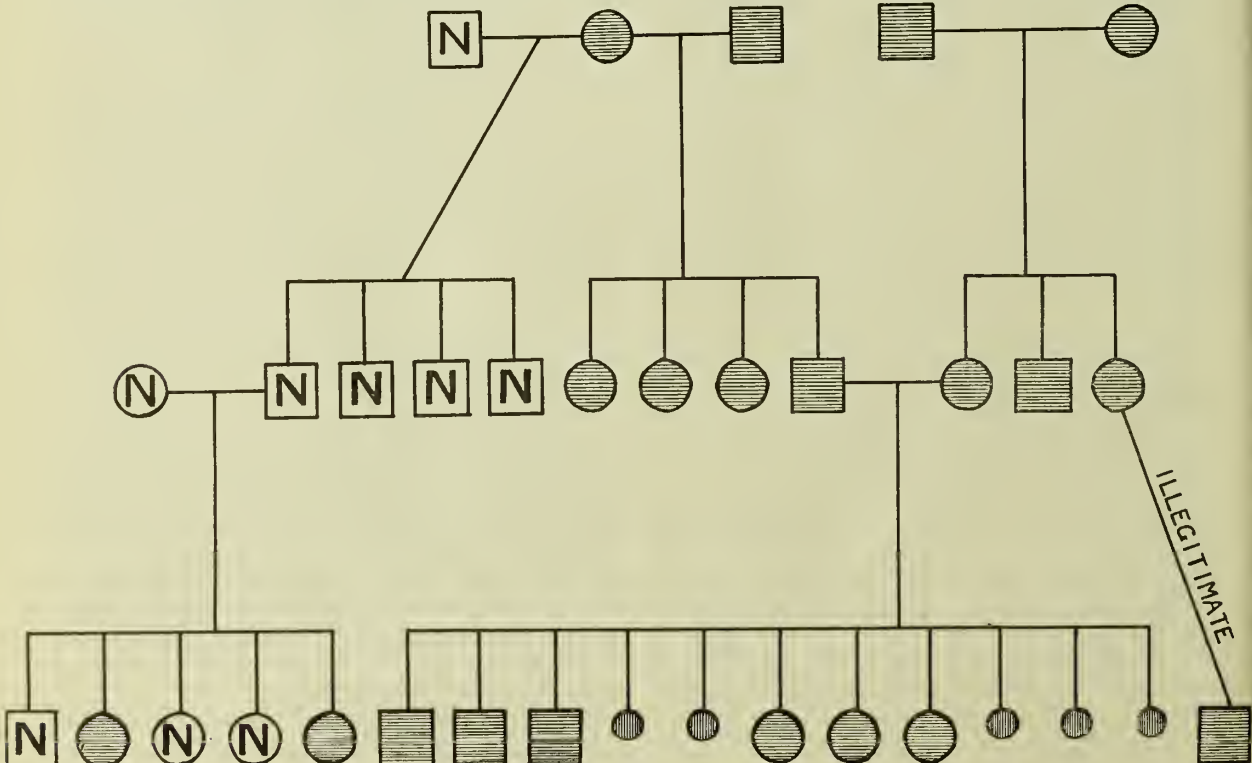
way stop the filthy stream of immigration which is now flowing like a putrid sewer through Ellis Island into the U. S.

Incompetent, diseased and feeble minded families are in most cases the large families. Very few families belonging to our strain have more than two or three children, but the pauper, feeble minded man and woman who are already a burden to society continue to populate our country, thereby adding to our already overloaded charitable institutions. If by federal laws the breeding of incompetents was stopped and the flow of undesirables from foreign countries prohibited our so called "lower class" would be wiped out in two or three generations.

There is no need of a lower class. Labor in this country more than any other, is considered honorable and all the work could and would be done by those who were mentally and physically fit, provided the breeding of incompetents were put an end to. If we could reach a condition of physical and mental balance, for which we should strive, poverty would be considered a crime.

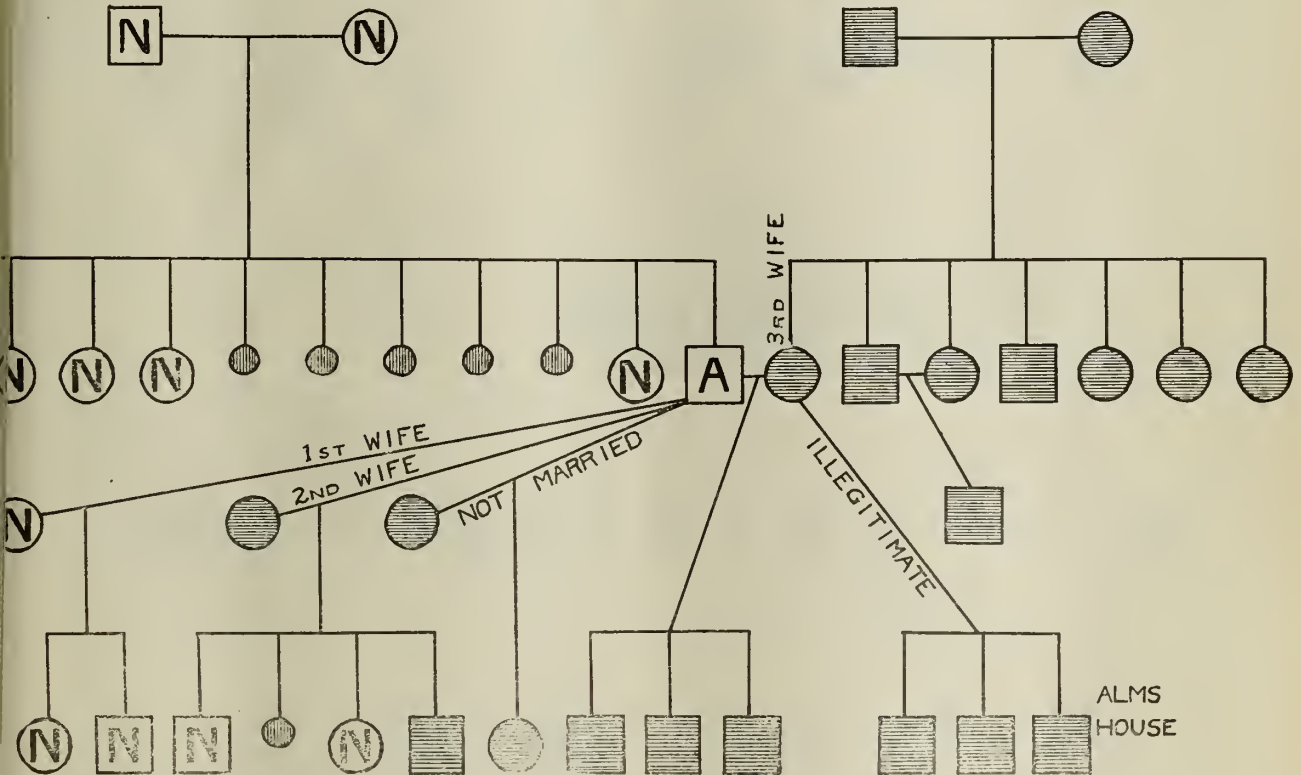
These charts were drawn to show you something along just one line—that is mentally incompetent people. These are actual genealogies. The round ones represent females, the square ones, males, light ones normal and dark ones feeble minded.

Chart No. 1—The normal man married



a feeble minded woman, result was four normal boys showing that the man's strength of character overcame her abnormality and result of their union was four normal boys. The normal boy to the left married a normal woman. The result of their union is one normal boy, two normal girls, two feeble minded girls. Now go back to the first generation, this abnormal woman who had already given birth to four normal sons had for her second husband a feeble minded man. The result of their union is three feeble minded girls and a feeble minded boy. First generation to the right shows two feeble minded whose offspring was three feeble minded children,

To them were born a normal boy and a normal girl. His second wife being feeble minded. The result of their marriage being a normal boy and a normal girl, a feeble minded boy, a feeble minded girl who died before she reached the age of two. This man also had a feeble minded girl from a feeble minded woman not married. This man's third wife (to right on second generation) was feeble minded and result of their union was three feeble minded boys. After his death this third wife gave birth to three feeble minded boys all illegitimate and now in the alms house. This third wife was the offspring of a feeble minded father and mother whose genealogy is shown on



two girls and a boy. The oldest daughter was married to the youngest son shown to her left. The result of their union was three feeble minded boys, three feeble minded girls, five feeble minded girls who died in infancy. The oldest daughter of the first feeble minded marriage shown on the right gave birth to an illegitimate feeble minded boy.

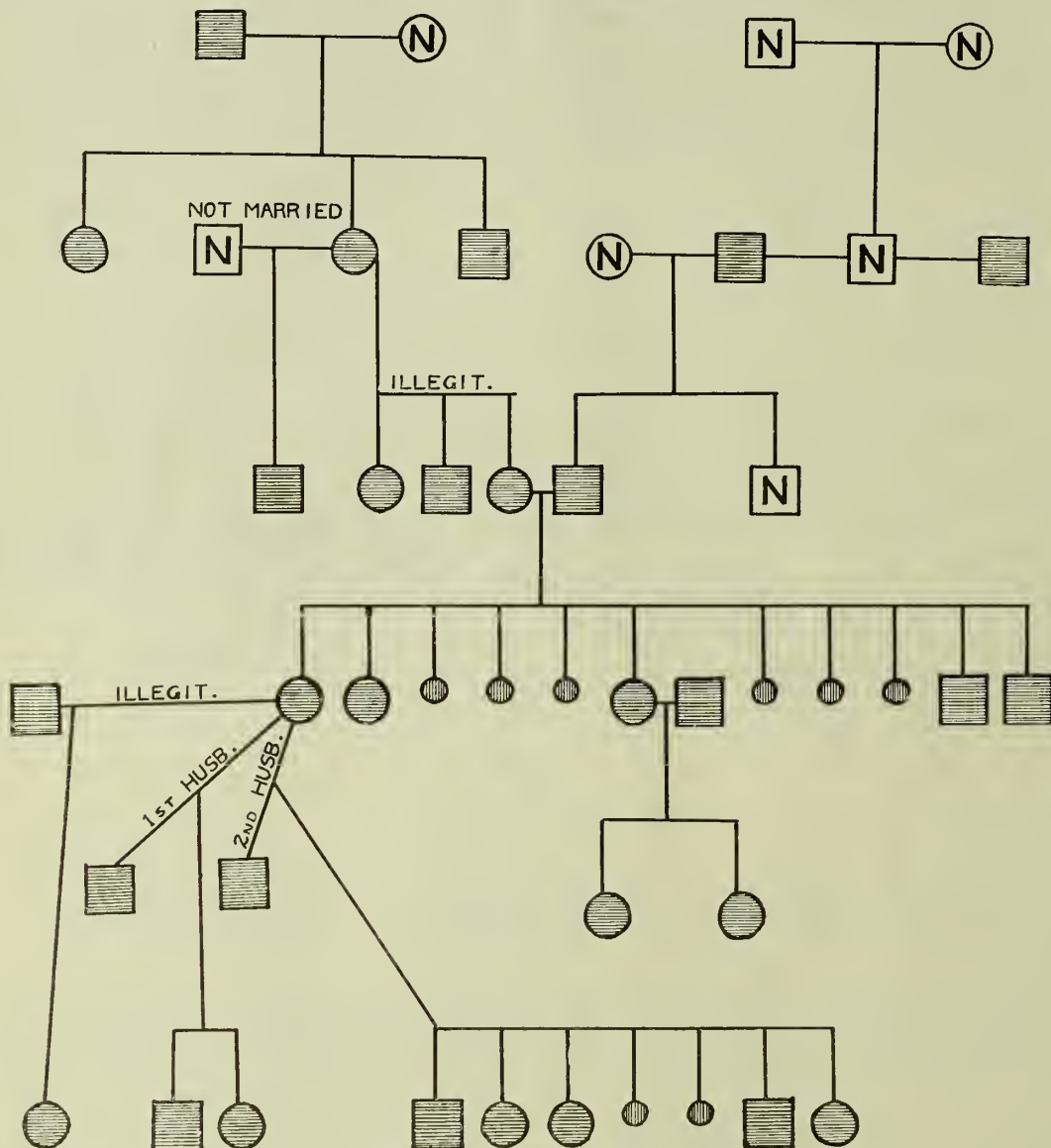
Chart No. 2.—First generation to the left a union of a normal man and a normal woman, their offspring is four normal girls, one normal boy, five children who died in infancy. The only son of this union was normal except that he was an alcoholic. His first wife as the chart shows was normal.

the right.

Chart No. 3.—Here is something very interesting to me. These two families started out with a 75 per cent normality in the first generation. The family on the left was the union of a feeble minded man and normal woman, the result of their union was three feeble minded children. The second girl giving birth to a feeble minded boy from a normal man. Afterwards giving birth to three feeble minded illegitimate children of unknown parentage. To the right the chart shows union of normal man and woman. The result of their union being three boys, two feeble minded and one normal. The first feeble minded girl was

wedded to a normal man of whose two children, one was feeble minded the other normal. This feeble minded boy was married to the third illegitimate feeble minded girl descended from the family on the left, the result of their union being three feeble minded girls, two feeble minded boys, six feeble minded children who died before the age of four. The first feeble

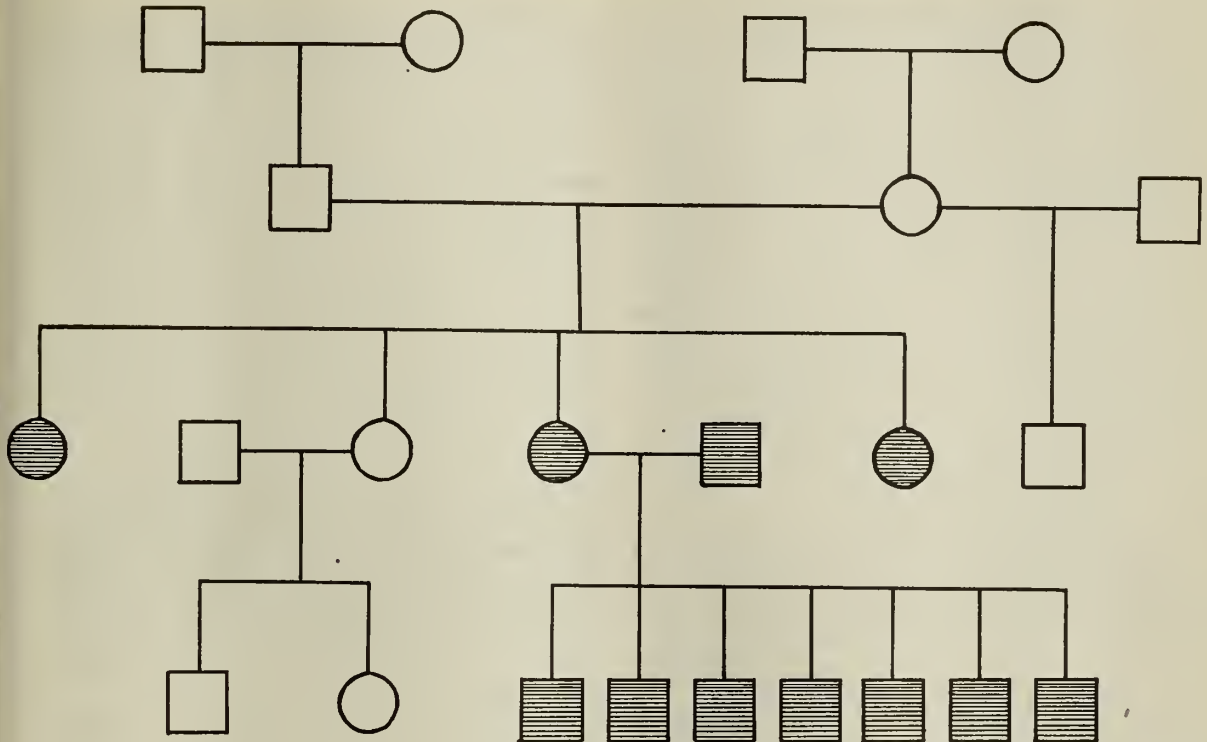
Chart No. 4.—This chart shows a family tree from two supposed normal marriages. On the left one normal boy, on the right one normal girl. These two normal people being married, their offspring resulted in three feeble minded children and one normal. The second feeble minded girl married to a feeble minded man producing seven feeble minded boys who are all in



minded woman from this union gave birth to an illegitimate feeble minded girl from a feeble minded man. Her first husband was feeble minded and to them was born two feeble minded children. Her second husband being feeble minded and the result of their union was five feeble minded children, two feeble minded who died in infancy.

institutions for feeble minded. This chart was kindly furnished me by Dr. Carmichael, Supt. of the Osawatometie Insane Asylum and the feeble minded girl whose seven children are shown in this chart is case 10042 in the Osawatometie institution.

Chart No. 5.—In showing you this chart I want to remind you that statistics show that most of the crimes are committed by



SEVEN IN INSTITUTIONS FOR FEEBLE MINDED

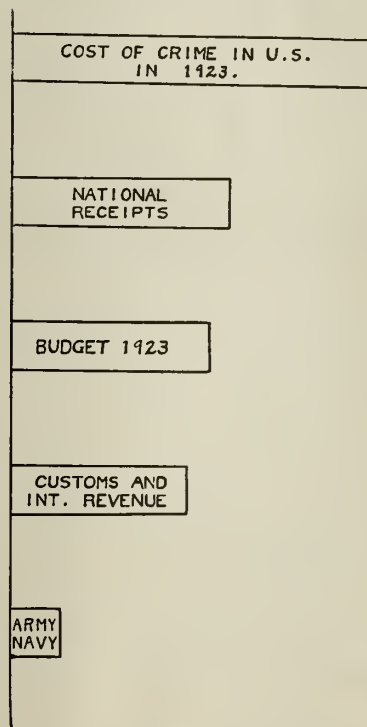
mental incompetents. A magazine published in Detroit called "Business" has published the following table showing the cost of crime in the U. S. in 1923, next the National Receipts, next the Budget of 1923, next the Receipts of Customs and Internal Revenue and last the total expense of our Army and Navy. This it seems to me is food for thought.

In connection with crime, I want to say to you this: Foreign born population furnish 14 per cent of the citizens of the U. S.—not citizens, but people in the U. S. and they furnish 21 per cent of the criminals. That is where your money is going. The Old Country is unloading them on you, we are breeding them here in this country and until this thing is stopped, the U. S. is going to slip.

I have a dispatch by the Associated Press here that I cut out of the paper. It is from Dresden, dated August 15th.

"The Government of Saxony has filed a motion with the Reichs authorities to provide an amendment to the criminal law compelling degenerates, criminals, feeble minded persons and certain classes of lunatics to undergo a sterilizing operation.

"The amendment would provide that the compulsory operation be performed after the patients refused to submit voluntarily and then only upon a court order after a



hearing before a committee of medical authorities."

Saxony is taking the lead in this and I believe that it won't be long until the U. S. will follow.

Vomiting in Pregnancy

M. W. Hall, M.D., Wichita

Read at the Annual Meeting of the Kansas Medical Society at Topeka, May 6-7, 1925.

Vomiting in women pregnant is present usually before the third month, and very rarely begins after the fifth month, unless associated with some other condition, such as eclampsia, or a hyperacidity of the stomach. As a pathological condition, vomiting of pregnancy is one with which we are all more or less familiar, and is not a condition which we are particularly fond of treating, even though we have not found it unusually hard to relieve. Various classifications have been made as to etiology or varieties. A number of authors have given the following

1. Toxemic vomiting.
2. Neurotic vomiting.
3. Reflex vomiting.

Personally, I do not agree with any of the three classifications. It is particularly unfortunate that the term "toxemia" has been used in connection with pregnancy; the term toxemia usually being associated with the word toxin, and primarily such a specific condition does not exist. A lack of function could hardly be classified as a toxemia. If such a condition is present it would be secondary.

The classification as neurotic vomiting can hardly be taken as etiological. It is more of an accessory to the cause, however, the neurotic element entering into this condition must not be overlooked, and it requires very careful treatment, and due consideration. It may become so important as to dominate the clinical picture, and demand the major share of the therapeutic attention, and the same with the reflex vomiting and intestinal intoxication, the reflex condition and the toxemia contributing their quota to the nausea and vomiting only insofar as they reinforce the real etiological factor, but are fundamental factors to be considered only from a standpoint of treatment.

Some of the theories of causation have been given as the lack of function of the internal secretory glands. The thyroid and the suprarenals seem to have received the major attention, but there is nothing about either to suggest a connection between them and the minor and major periodicity of nausea and vomiting of pregnancy.

Whatever may be decided as to the ultimate cause of nausea and vomiting of pregnancy it has been quite generally accepted that it is not due to any definite toxin eliminated by the growing fetus or placenta and

the failure of the mother to manufacture the necessary entitoxin. We do recognize a very severe metabolic strain on the mother when it becomes necessary for her to meet the sudden strain of a rapidly developing fetus upon an adult organism, and possibly with a lack of internal secretion of the different glands, especially the corpus luteum of the ovary and the islands of Langerhans of the pancreas which undoubtedly have a definite action on the carbohydrate metabolism, the lack of which is very apparent. With our present state of knowledge, I can see no use of making any further assumptions as to the etiology of nausea and vomiting of pregnancy.

For the sake of convenience it is best to make some classification in taking up the treatment of this condition. Probably the most satisfactory method would be to make the classification according to the severity of the case, as that would more nearly comply with the method of treatment; i. e. mild, moderate and severe, or pernicious vomiting.

The mild cases are the ones more often referred to as morning sickness. Quite often these patients do not consider it of sufficient importance to even mention the condition to their physicians. It affects probably fifty per cent of all pregnant cases and it is quite often regarded as a normal sign of pregnancy, and only one of the inconveniences of pregnancy to be endured. The mild form is quite often very easily corrected by regulating the diet and habits of the patient. The laboratory findings are negative.

The moderate form can be regarded as a continuation of the once milder case, as they quite often give a history of having suffered from morning sickness for several days or weeks. This patient will not only vomit her breakfast, but several times during the day. They are usually able to retain one meal per day and enough fluids to prevent an excessive dehydration. These individuals will be quite miserable. The odor of food or any nervous irritation will excite an attack of vomiting. One day they will feel quite all right and on the following day the symptoms will return. Urinalysis will be negative except for a slight rise in the specific gravity and increase in the ammonia ratio to the total nitrogen, which are the results of the dehydration and starvation. In treating these cases they are best put to bed and given a sedative in the form of chloral hydrate or bromides per rectum, or pantapone and codein per hypo.

Retention enemas of soda bicarb and glucose are very efficient in combating any dehydration. These cases will be able to take some nourishment by mouth. Some form of carbohydrate easily assimilated, the ones found most effective are custards, predigested milk, baked potatoes, dry toast, etc. For drinking, an orangeade combination consisting of orange juice and water, half and half, equal parts of lactose and simple syrup, potassium acetate, give excellent results in combating any acidosis.

I give these cases extract of corpus luteum intravenously from once to twice daily. I believe it has a definite therapeutic value. Just how to explain its action I am not prepared to say, but I am quite positive that its therapeutic action is more than psychological. I have used different solutions by hypodermic and intravenously, including sterile water and the different brands of extract of corpus luteum without practically any success, except with the Hinson, Wescott & Dunning preparation, and it has been very satisfactory, insomuch that I give it fifty per cent credit. However, I consider the diet and the general management of the case most important, which must continue for some time after the vomiting has stopped, to prevent a recurrence.

The severe type or the pernicious vomiting are the cases that give us the most concern. These cases, like the milder types, usually give a history of having suffered from nausea and vomiting from several days or weeks. They are not able to retain anything taken by mouth. Even water is vomited soon after it is taken into the stomach. Headache and pain in the stomach are two very common symptoms. Urine is scant, highly colored, and of high specific gravity. Albumen and blood are very likely to be present. Diacetic acid and acetone are always present. The odor of acetone can usually be detected on the patient's breath. These patients are in a critical condition, and unless prompt relief is given they may die.

These are the types of cases in which therapeutic abortion is too often done, and it is anything but therapeutic. It does not always stop the vomiting. Treating the vomiting at this stage of the game is of secondary importance. These cases are suffering from an acidosis. They are severely dehydrated, have a low blood sugar. The liver does not have the sufficient glycogen to combat the acidosis, nor does it have the ability without some assistance, shown from the fact that these cases on

post mortem show a fatty degeneration of the liver, which is secondary, but nevertheless, a condition to be dealt with. We have treated these cases on the theory that in the early stages it is a lack of metabolic balance affecting principally the carbohydrate metabolism. This has been worked out by Watson, who reports one failure in 87 cases. He mentions that Titus, Hoffman and Givens used practically the same methods, and have had equally good results in 144 cases.

The use of insulin is entirely original with us, inasmuch as that up to the time we first began its use we were not able to find any reference in literature concerning its use in pernicious vomiting of pregnancy. We have no theories to offer here as to its method of action, except that it aids in the carbohydrate metabolism and reduces the acidosis. In supplying the immediate deficiency of glycogen our best method is in the intravenous use of glucose in normal saline, and with similar solutions by proctoclysis.

The method of treatment is best illustrated in the report of five cases of pernicious vomiting. Cases 1 and 2 were not given insulin. Cases 3, 4 and 5 were given insulin. In comparing the cases it is very easy to see the prompt action of the insulin.

Case 7732.—This case was very interesting, and I believe the most severe case of pernicious vomiting I have ever had. Patient, age 32, para 2, first seen in the office on October 11, 1924. Rather large, well nourished and not of a nervous type. Previous history; appendicostomy and tonsillectomy. In previous pregnancy had nausea and vomiting during the first three months. Spent most of time in bed.

Present history: Last menstrual period August the 19th. Has been nauseated about 2 weeks. Only vomited a few times in the last few days. Corpus luteum was given and instructions as to diet. Two days later saw patient in home. She was having a great deal of difficulty in retaining any food or liquids. Corpus luteum intravenously was repeated at this time and for two successive days. However, the vomiting continued to grow more severe.

October 16th patient sent to hospital. On admission temperature was 99.4, pulse 76, respiration 22. She was very much annoyed by the amount of saliva of a thick, ropy consistency which continued coming into the mouth too rapidly to be swallowed. Vomiting almost continuous, no food or water had been retained in the last 24 hours. She was suffering from a severe headache

and pain in the stomach. The odor of acetone on the breath was very marked. The urinalysis: First specimen insufficient quantity for specific gravity; reaction alkaline, albumen positive, acetone present. The following specimens acid in reaction, specific gravity .1028; acetone positive, diacetic acid; blood positive.

Treatment: 11 A. M. chloral hydrate grains 10, per rectum; 11:30 A. M. 500cc of 4% solution glucose intravenous; 12:20 retention enema glucose 10%; 1 P. M. pantapton, grains 1-3 by hypo; 6 P. M. 750 cc 4% glucose and normal saline intravenous. 8 P. M. retention enema plus chloral hydrate, grains 15. Nutrient enemas repeated every 4 hours. On second day took some grape juice, peptonized milk, of which most was retained. 500 cc intravenous glucose 4%. Third day: some sedative, diet, custard, peptonized milk, milk toast, no food vomited, some vomiting. Fourth day: urine shows albumen negative, specific gravity .1028, marked trace of diacetic acid. Had some vomiting. Retained most food taken. 500 cc 4% glucose given intravenously. Saliva in mouth still giving some trouble. By the fifth day she had stopped vomiting and was able to take a soft diet, complained of being hungry, gave no further trouble.

Case 9018.—Mrs. D. Age 23, para 5. Previous history unimportant. Last menstrual period February 17, 1924. First nauseated on March 17. Gave very little trouble only in the mornings. She was able to retain breakfast if taken in bed, and she would remain there about one hour after eating. This plan worked very well until April 17th, when most everything taken into the stomach was vomited. I first saw the case on April the 21st at the patient's home. Found her complaining of headache, dizziness, pain in the stomach and quite nauseated. Would vomit whenever attempted taking food. The odor of acetone on her breath was quite marked. Urinalysis: Specific gravity .1024; albumen, trace; acid in reaction; acetone marked trace, diacetic acid present. Blood, sugar .081.

Treatment: 1,000 cc 5% glucose given intravenously, plus 10 u of insulin by hypodermic. One hour after insulin blood sugar .076. 1,000 cc of glucose in normal saline given intravenously. In one hour blood sugar .082. The following day 1,000 cc of glucose 5% given intravenously. There was very little vomiting this day, but to relieve the patient of the worry of having to retain so much fluid and not having only about 50% success with the retention enemas it was thought best to give the intravenous.

There was no more vomiting after the second day, and urinalysis was negative, except for a very slight trace of acetone. Patient did not have a recurrence after leaving the hospital.

Case 5148.—Mrs. C., primipara, age 19, American by birth. Was admitted to the hospital October 23, 1922. Her past history was entirely negative as regards illness or operation. Last menstrual period August the 10th, has been vomiting periodically for several weeks. When I first saw her she was vomiting almost continuously. Her husband stated she had been that sick for the last 24 hours. Gave the patient 1-2 grain of codein by hypo and sent her into the hospital. On admission, temperature 98, pulse 88, respiration 18. First 18 hours was not able to get a specimen of urine. At 1:30 P. M. gave 1,000 cc of a normal saline plus a 4% glucose intravenously. Patient vomiting a dark brown fluid. At 4 P. M. retention enema, of a 4% soda bicarb, 10% glucose and 30 grains of sodium bromide. Solution retained. 5 P. M. patient sleeping and not nauseated. 7 P. M. patient restless, codein, grain 1-2, hypo. Retention enemas repeated. At 10 P. M. pantapton grain 1-3, hypo, 1,000 cc of normal saline with 4% glucose hypodermoclysis.

October 24. Patient rested well during the night, retention enemas were given every 4 hours, corpus luteum 1 cc intravenously was given for the first time. Pantapton, grains 1-3, every 4 hours during the second day, vomit only about 1-2 dozen times during the day, in all 5 or 6 glasses of orangeade were retained.

October 25. 2 ampules of corpus luteum intravenously and codein grain 1-2 per hypo was all the medication given, retention enemas and orangeade taken and retained. Patient vomited only 3 times, once on peptonized milk.

October 26. Only medication given was corpus luteum intravenously. Patient vomited food only once during the day.

October 27. Patient discharged from hospital, no nausea or vomiting, on general diet.

Had no recurrence of symptoms.

Case 8416.—Mrs. W., age 20, primipara. A fairly well nourished individual, showing some signs of starvation. Previous history: About 3 years ago was treated for gastric ulcer, but judging from the present findings the symptoms were probably caused by a chronic appendicitis, a condition which she now has. Also gave history of severe constipation.

At present time about two and one-half months pregnant. Complains of headache, backache, nausea and vomiting. The nausea and vomiting started about two weeks ago. Has been gradually growing worse. She was given corpus luteum intravenously on four successive days. Symptoms increased, and she was sent to the hospital January 21, 1924. Laboratory findings: urine acid in reaction; specific gravity .1020; albumen negative; acetone marked trace; diacetic acid slight trace; blood sugar, .09.

Treatment: 5:45 P. M. 500 cc of a 5% glucose plus 10 units of insulin intravenously. We had not finished giving the intravenous when the patient remarked that her headache was very much less. At 7:30 patient was able to retain some orange juice combination, and some soft diet, being the first foods taken and retained in 48 hours. In one hour after the insulin and glucose was given blood sugar showed .07. Orangeade combination repeated and retained. 2 hours following insulin blood sugar .08. At 9 A. M. the following day urine showed no acetone or diacetic acid; specific gravity .1014. This patient had no further trouble, returned to the hospital July 17th and had a normal delivery of a living full-term infant.

The same treatment no doubt would be quite efficient in the moderate cases, but we have not found it necessary, as the treatment outlined under that type has been quite satisfactory.

We recognize the possibility of some danger in the use of insulin in a patient so markedly dehydrated and with such a low blood sugar, but if the following rules are observed the danger would be insignificant.

1. Patient must be in hospital with good laboratory facilities.
2. Always give intravenous glucose before giving insulin. (To prevent accidents happening to intravenous solution).
3. See that the glucose solution is properly prepared. (Glucose must not be caramelized in sterilizing).
4. Do not allow solution to become cold while giving, and give slowly. A .023 gauge needle is preferred.

And once again, abortion is not indicated in these cases, as a therapeutic measure. You are dealing with two lives in place of one, and when you do an abortion you are admitting 50 per cent failure.

Diabetes Insipidus

HOWARD MARCHBANKS, A.B., M.D., Pittsburg, Kansas.

Read at the meeting of the Jasper County Medical Society, Joplin, Mo., March 10, 1925.

Diabetes insipidus is one of the few clinical entities that, until the last few years, received very little attention in our text books on medicine. During the last six or eight years, however, we read of the condition much more frequently, perhaps due to the fact that endocrinology has become a specialty in itself and much research and careful clinical observation has been done that has made the condition one of the interesting phases of the internist's work.

I have been especially interested in these cases for some years and while I have observed only a few scattered cases yet they have been very instructive. The general practitioner perhaps sees cases in his work but does not take time to recognize them. He should, in every doubtful case that comes to his office, obtain a 24 hour quantity of urine and, if the specific gravity runs low in this specimen, he should suspect diabetes insipidus and prove that it is or is not before he discharges the patient.

The disease has been divided into two groups: (1) The primary or idiopathic group including the hereditary cases with a possible defect in either the kidneys or possibly in the pituitary gland. (2) The symptomatic group which comprises the cases giving histories or findings of disease of pituitary gland or brain tumor that, by pressure has destroyed the function of the gland.

Newmark, in reviewing many cases reported and the gross autopsy findings in them cautions against the advisability of making a diagnosis of the idiopathic group. He feels that it is likely that all cases have an organic nervous cause.

The etiology of the disease, so far as is generally accepted is, first—Males are more likely to have it than females; the majority of the cases are in young individuals; heredity has been thought to play some part; patients have frequently dated their symptoms to excessive drinking of water; menstrual shock has been supposed to start some cases; quite a few cases are reported as beginning following injury to the brain; syphilis too, by forming gumma or by irritation causing meningitis can well be called a cause.

Of the case histories which I will report there are perhaps four (cases 2-4-6-7) in the symptomatic group, while the other

three (1-3-5) might be classed in group one. I will discuss the possible etiology in each case.

Case 1.—Mr. W. C., age 27, came to me August 10, 1919, complaining of loss of weight and strength and pain in back. He had a great thirst which he could not satisfy. He would drink eight to ten quarts of water in a day and night and would pass large amounts of urine. His 24 hour quantity was 8 liters with a specific gravity of 1.001. Other than this the examination both physical and laboratory was negative, except his blood pressure was a little low, S. 104. D. 70. Wassermann was negative. His symptoms dated back six weeks.

He received Fl. Ext. Ergot mx, Tr. Belladonna mx and Elix. I. Q. & S., q.s. to make a dram, t. i. d. I told him to change water and by August 30th, he was drinking only three quarts and passing only three quarts with specific gravity of 1.008. I put him on whole pituitary gland and kept him on the same formula as before. His wife reported a year later that he had had no more trouble after his treatment but that he had not used any of the water from the same source after going back home. I did not see him after that time.

Just why this condition sprang up and subsided so quickly I was unable to say. What effect the ergot or belladonna had on it is doubtful. Perhaps none, yet why he should become so much better and stay better was quite surprising and I was very much disappointed in not getting to make a better study of the case.

Case 2.—Miss L. C., girl 18 years old, who was referred to me by Dr. C. A. Smith, January 18th, 1922, with the complaint of a gain of 38 pounds in less than a year. She complained also of loss of strength. She was a bed wetter and passed quite large amounts of urine, both night and day. She drank large amounts of water and was always ready to take another drink.

Physical examination:—Height, 64 inches; weight, 168 pounds. Flesh was soft and fat. Patient had the mentality of about a 10 year old child. She was extremely hard to handle as a patient and refused most of the examination and treatment. She passed from nine and one-half to sixteen and one-half pints of urine in 24 hours. The specific gravity ranged from 1.000 to 1.006 during the period of 8 months she was under observation. Her Wassermann was negative.

She was a true type of posterior pituitary

diabetes insipidus with a metabolic disturbance resulting in her obesity, also from the posterior lobe of the pituitary. Had she co-operated in the examination and allowed us to do a lumbar puncture we might have gotten a positive Wassermann or at least a relief from the symptoms. P. T. Bohan reports a case of complete relief following puncture and other observers have made similar reports. Bohan's case did not have the metabolic disturbance, however, that existed in this patient. No one has been able to explain satisfactorily the cause of the improvement following the spinal puncture.

This girl was given posterior gland by mouth and a few hypodermics of pituitrin but she did not like the needle so her mother decided to take her to the "Springs." I have not heard from her since that time.

Case 3.—Mrs. L. M. A., married woman, 37 years old, came in August 16th, 1920, complaining of her eyes pulling and nervousness. Her eyes had bothered her for 18 months. Had worn glasses for 3 years. Had no headache. Her menstrual history revealed that she had been married eleven years without a pregnancy. Her menses were regular, painless, of three days duration, with scant flow. She weighed 96 pounds and was 63 inches in height. Her appetite was good. Slept fairly well except she awoke 3 or 4 times to void her urine during the night. She voided frequently in the day time as well.

Physical examination was not remarkable. Uterus was retroverted and small. Blood pressure, S 110, D. 70. She passed 4 quarts of urine in the 24 hours but the specific gravity was only 1.004. Her Wassermann was negative. Spinal puncture was not advised at that time. Phenol-sulphonephthalein output of 80 per cent. We gave her fl. ext. ergot, ovarian extract and pituitary whole gland.

By November the same year the specific gravity had raised to 1.012, and by January 20th, 1921, to 1.018. The patient was feeling better and was passing about 3 pints of urine in the 24 hours. She had taken, along with the medication before mentioned, some sodium bicarbonate and precipitated calcium carbonate. Her eye symptoms were very much improved as well as her nervousness. I saw her in July, 1923, at which time the specific gravity of her urine was 1.010 and the amount was 3 pints in 24 hours.

This case was perhaps not a true diabetes insipidus yet had treatment not been

started her symptoms would have perhaps become more exaggerated to say the least. I think this might possibly be classed in the idiopathic group.

Case 4.—Mrs. A. W., age 43, white, came in July 12th, 1921, complaining of light colored splotches over the body. They were worse on neck, arms, chest and back. Some on left hip but chiefly above waist. She had first noticed these splotches about three years before. Her father and one uncle had had similar splotches on their bodies rather late in their lives and the patient's daughter had one on the shoulder about the size of the palm of one's hand. She felt fairly well otherwise except in A. M. she felt tired and had bad taste in her mouth. Had some pain in back of head and neck.

She said she had been getting treatment for her kidneys for about 4 years. She was the mother of two children, living and well, 14 and 18 years old. Had two miscarriages at 6 months after the children were born. Typhoid at 13 years.

On examination we found a fairly well nourished woman for her years. Splotches described above were very much in evidence. Several bad teeth were present and some pus in right tonsil was squeezed out. Eyes reacted normally. Examination was otherwise normal except the 24 hour urine specimen had a specific gravity of 1.004. She passed 4,000 cc in 24 hours, otherwise the urine was normal. Phenolsulphonephthalein was 50 per cent in 2 hours. Wassermann was 4 plus. We had her save numerous 24 hour specimens of urine and 1.008 was the highest specific gravity.

We gave her quite vigorous treatment for her syphilis and her general condition improved wonderfully. Her urine also decreased in amount and the specific gravity came up to 1.012 but has never been over that for the 24 hour quantity. In getting single specimen, however for a Mosenthal we have gotten some as high as 1.020 which shows that the kidneys are getting back their ability to concentrate the urine.

This patient has been under close observation for over three years and as soon as she begins to feel bad generally she begins to pass larger amounts of urine with low specific gravity.

We have not done a spinal puncture on this patient because the amount of urine never has been large and there are no other signs of cerebral lues to justify puncture. I believe there is some irritation from the syphilis, perhaps in the form of a gumma

in the region of the posterior lobe of the pituitary body but it is easily controlled by salvarsan, mercury and iodide. I would class her in the second group, a mild case.

Pituitrin by hypo, was given this patient with very interesting results. She had not menstruated for 18 months but while she was taking the pituitrin over a period of about three months she had some show on several occasions. The urine was also concentrated during that period, very markedly.

Case 5.—J. S., male, age 49, tall and thin, came in August 19th, 1922, with a history of getting up to void his urine from 8 to 12 times at night. He would actually void as high as 25 times in the 24 hours and sometimes not be able to retain his urine for more than 30 minutes. He would drink every time he voided. He felt worried and worn out. He had occasional headache. His appetite had been usually good. He thought he slept fairly well. He took a daily laxative and got several watery stools daily, from it.

Examination:—Tall, thin, anemic and cyanotic appearance. Teeth were very bad, heart slightly enlarged to left. Skin was clammy. Some soreness in left upper quadrant. Reflexes were exaggerated. Pupils were small and reacted sluggishly to light. Romberg was positive. The specific gravity of the urine varied from 1.001 to 1.008. The amount varied from 3,700 cc to 6,000 cc. Red cells, 3,450,000; Hemoglobin 75 per cent; White cells 18,200 with 89 polys. There was a trace of indican and few pus cells in the urine. Metabolic rate was plus 5. Spinal pressure was 180 mm water pressure. There were 20 cells to cmm. Wassermann, negative.

There was a marked improvement following the spinal puncture. His thirst was less and he would go through the night voiding only two or three times. We gave him pituitrin per hypo for some weeks with still some marked improvement. On November 6th, three months after the first spinal puncture we did a second and following this the urine dropped to 1,500 cc with a specific gravity of 1.018. We gave him sodium cacodylate intravenously for some while to build up his general condition and he has done remarkably well since.

This is a case of a moderately severe diabetes insipidus of the second group, and one that was greatly improved by spinal puncture, and given still further relief by pituitrin even though the pituitrin was given only every other day.

Case 6.—Mrs. M. J., a woman 30 years

old that seemed in the pink of condition, came into the office September 25th, 1923, with complaint of headache. The ache was always on top and front and frequently in the back as well. Her head seemed hot to her all the time. She had frequent urination both diurnal and nocturnal. Her bowels were constipated and she took frequent laxatives. She wore glasses but they made her head no better. Her appetite was good and her sleep was disturbed. She had frequent attacks of tonsillitis. She was the mother of two children living and well, the youngest 14 years old. One miscarriage three years after the youngest child was born. Menses were regular, passed clots usually. She gave a history having had these headaches since she was 12 or 13 years old and also of having the kidney trouble for the same length of time. She said that she passed as much as 12 to 14 quarts daily for as long as she could remember. Her appearance, however, did not show any sign of the condition having hurt her any.

On examination we found a well nourished and well proportioned woman of 30 years. Her tonsils were not good but otherwise there was nothing remarkable about physical examination. The 24 hour quantity of urine was 10,000 cc with a specific gravity of 1.000. She had taken 8,500 cc of water besides other fluids which she used with her meals. The urine contained no albumin or sugar. Blood Wassermann was negative. Spinal pressure was 110 mm water pressure. 110 cells. 4 plus Wassermann was reported on spinal fluid.

We put her on K. I. and mercury for a short time before starting her on salvarsan without any change in amount of urine. The amount varied from 8 liters to 11 liters in 24 hours. On October 20th, we gave her 2 hypos of obstetrical pituitrin, 1 cc each time, 7 hours apart and her amount dropped to 5 pints and she went through the night for the first time since she was 12 or 13 years old without having to get up to void her urine. I gave her 2 hypos daily for some time and finally she decided to take the pituitrin herself which she did for a couple of months, during which time we gave her quite a thorough course of anti-syphilitic treatment. While she was on the pituitrin the amount she voided varied with the amount of pituitrin she took. When she took two doses of 1 cc each about 8 hours apart she would pass from two and one-half to three and one-half liters, while if she took one dose daily she would pass

from four and one-half to six liters daily. If she took none she would pass from eight to ten liters. She got to the place where she would keep it to take at bed time when she wanted a good night's rest. We gave her posterior pituitary gland and ergot by mouth without any benefit at all. The pituitrin would make sore spots at site of injection so she finally decided to let it go. She said that she really felt worse after taking the pituitrin for a couple of months than she did before, so decided to leave it off and perhaps take a dose occasionally just for a little relief.

The spinal puncture made no impression whatever on the amount of urine she passed, neither did the anti-syphilitic treatment seem to alter the condition in the least. Just what part syphilis has played in the etiology of her diabetes insipidus one is unable to determine. Unless her syphilis is of the hereditary type it is most likely that it has nothing to do with it. Since there was no improvement whatever in the amount of urine except when the pituitrin was used, we are convinced that the positive Wassermann was the result of an infection acquired after the onset of her diabetes insipidus.

Case 7.—Mr. D. M., was referred to me for treatment by Dr. Tyree of Joplin, Missouri, on October 18th, 1924. The patient had been examined and diagnosed by Dr. Engleback of St. Louis to whom Dr. Tyree had sent him for examination.

His chief complaint was frequent urination, thirst, a feeling of fainting about his chest which would seem to come upward and draw his head backward. He had a feeling that he might be going to die. He also felt weak and had sleepless nights and would get up 4 to 8 times at night to void his urine. He smoked incessantly. He complained also of constipation.

This patient had been complaining for at least three years of various pains about his body. Had appendix out in 1921, and I saw him in February, 1922, at which time he complained of nervous attacks and said he had not been feeling good since before his appendix was out six months or so before. Said he had been advised to have his tonsils out. He had little quivery spells over body. His sleep at that time was not good but he had no nocturia and a 24 hour quantity of urine was 1,000 cc with a specific gravity of 1.018. At that time, I find on my notes, the patient did not look well especially, but not anemic. Fairly well nourished; tonsils doubtful; two or

three doubtful teeth; thyroid not enlarged; heart not enlarged but rapid. Examination otherwise negative.

He later had his tonsils out. Was also seen by Dr. William Duke of Kansas City, Missouri, who found a plus 8 metabolic rate on him and advised treatment for mild hyperthyroidism.

His symptoms grew gradually worse until he gradually began to notice his unsatisfiable thirst and the frequent urination, nervousness, loss of weight, sleeplessness, etc., which led him to Dr. Tyree and Dr. Engleback.

The findings at this time were as follows: Young man of 28 years with haggard and worn out appearance. He showed markedly the loss of sleep and would smoke one cigarette after another in an attempt to quiet his nervousness. He looked pale and anemic but other than these outward signs the examination was negative. The urine amounted to 10 or 11 quarts in 24 hours with specific gravity of 1.000 to 1.002. Otherwise the laboratory findings were negative. No spinal puncture was done either by Dr. Engleback or myself. X-ray throughout, including the head, was negative.

Dr. Engleback had suggested that we start him on 1 cc surgical pituitrin daily, with an increase of one minim daily until abdominal symptoms were complained of. Also to give him 1 cc antuitrin (P. D.) daily as well as 10 gr. pituitary substance, t. i. d. He had quite a severe abdominal reaction from his 1 cc of surgical pituitrin so we finally reduced it to m. IV per hypo three times daily and left off the antuitrin and pituitary substance which seemed to give no relief whatever and the results have been marvelous. He has gained 12 pounds in weight, sleeps all night long with the exception of getting up once to void. His nervousness is greatly improved and his smoking has stopped and he feels very much encouraged though he has to take his three shots daily. Urine, 3 quarts, specific gravity 1.010. This is a very exceptional case and one that has responded most admirably to pituitrin. He is now working all the time and feels quite like he did several years ago. His friends say he is more nearly normal than before his appendix operation in 1921.

I will offer the suggestion that holds good with pituitrin in this type of diabetes insipidus the same as insulin does in the treatment of diabetes mellitus; The frequent dose of pituitrin al-

though small will do much more good than the larger doses for the reason that the large dose defeats its purpose by causing severe contractions of the involuntary muscles which make the patient feel weak and fainty. Normally the pituitrin is given off in small amounts so when given artificially it should be given in the same manner if the best results are to be obtained. Surgical pituitrin being more concentrated is much less painful to the patient than obstetrical. This patient has experienced no abscess or discomforts of any kind from the injections which his sister gives him.

Of these seven cases we have three very severe ones, cases 2, 6 and 7. Case 2 possessed marked disturbance of the metabolism as shown in her obesity. Her mental condition was also not the best. She was sullen and hard to get along with. Cases 6 and 7 had no other signs of disturbance of the pituitary gland than that of diabetes insipidus.

Case 4 is one of mild diabetes insipidus due to syphilis and is the kind that can be helped very materially by active anti-syphilitic treatment.

Cases 3 and 5, I will not attempt a guess at the etiology unless they be due to infection of the teeth. The teeth showed several apical abscesses which were gotten rid of. Improvement in these cases was gradual and could have been due to the riddance of the infection.

Case 1, I think, must have been due to the water he had been drinking because after change of drinking water his polyuria ceased.

CONCLUSION

1. Diabetes insipidus must be a symptom complex caused by some irritation or injury to certain areas about the hypothysis which causes a secretion of urine of low specific gravity and a great thirst. Other signs are weakness, low blood pressure, comparatively slow pulse, some dryness of the skin and usually absence of perspiration.

2. The disease must be differentiated from diabetes mellitus, chronic nephritis, cardio-vascular disease, functional neuroses as hysteria and epilepsy and perhaps in some cases polyuria is due to the habit of drinking large quantities of water, beer, etc.

3. In true diabetes insipidus cases the reduction in the amount of urine voided and in the amount of water required to relieve the thirst, is very marked, when the extract of the posterior lobe is injected into the individual.

All in the Day By Rennig Ade.

Brrrrr.—brrrrr,—brrr, rings the Doctor's phone at two-thirty a. m. Outside the steady drip on the tin roof of the sleeping porch indicates that this is no time for a hapless individual who never pays a doctor bill to get sick. He will have to call at least three times, and follow out at least that many lines of home treatment, before he can hope to get the Doctor out.

The usual procedure follows. Finally the Doctor piles out and gropes his way to the telephone.

"Hello, Doc?"

"Yes."

"Come out ta Hank Smith's jest as quick as you can get here."

"What's the trouble?"

"Hank's terrible sick. Thinks he was poisoned by some meat loaf he et at the Church Social."

The Doctor knows Hank, and by the eternal living cat-fish he vows not to go a step.

"Give him a tablespoon full of salts, and put a mustard plaster on him," hastily advises the Doctor; and starts back to bed, incidentally kicking with his bare toes a baseball bat that an ardent fan, nine years old, has left on the dining room floor. This weakens the doctor thoroughly, and a moment later when he rams his head into a half-open door, he is in excellent shape for an hour's sleeplessness.

He lies there wide awake, thinking of Hank. He wonders if a real doctor would turn down a fellow human who is in pain, simply because the said human was unable to place in the Doctor's greedy talons the sordid gold. He remembers that Hank had gotten up one night and pulled his (the Doctor's) automobile out of a ditch. He remembers that Hank had dug a big can of fish worms in the hot sun one day, when he and the Doctor were going fishing. He remembers that Hank had volunteered, and had had his services accepted, to set up the night after old man Simpson died—and also that he was found the next morning asleep alongside the corpse, with two empty Peruna bottles accusingly near.

All these things he remembers of Hank, nor can he remember anything sufficiently vicious to justify letting him writhe in mortal agony on his humble bed, simply because he is of empty purse.

He also remembers that Hank's wife is a gentle creature deserving of consideration and pity; that she has clung to Hank with

commendable fidelity, never doubting but that her husband is the victim of adverse luck and ill health—the truth being Hank is a big, lazy, shiftless individual of the type found in every locality.

As the Doctor squirms about uneasily in his bed, he gradually minimizes Hank's shortcomings, and berates himself as being a heartless Shylock, unworthy to display the emblem of the staff and serpent which graces his radiator.

An hour later when the phone rings he feels a great wave of relief. He knows intuitively that it is Hank's wife, and she will ask him to come out and see Henry, who is not any better despite the mustard and salts. He also knows that he will put the chains on the old car, and skid along for thirteen miles out to Hank's place, and that the confinement at Swenson's which occurs regularly in June will probably come off while he is gone. This latter he relies upon for taxes, as Swenson is always prompt in payment, and never kicks on an extra visit or two.

Everything comes to pass true to form. He gets his trusty old night rider out of the garage, and the run out to Hank's is made without incident, except the usual changing of a punctured tire in the gumbo flats in the creek bottom. Too late he recalls at this time that his flashlight had been taken out of the car by the aforementioned baseball fan, who had used it in crawling under a neighbor's barn hopefully searching for a nest of rotten hen eggs. However, by feeling around in the pitch darkness he manages to get the two fence posts placed so that they offer a foundation for the jack. At the third effort the jack remains firm and the tire is changed with no further damage than the tearing of the Doctor's new raincoat down the back, and the loss of a pair of pliers.

Hank's house finally looms darkly ahead, not a light showing. After considerable pounding the Doctor manages to wake up the household.

Hank comes sleepily to the door gruffly asking "Who's there?" On being informed of the identity of the visitor he invites the doctor in, commenting at the time, "It took you a hell of a time to get here. I had a lot of pain till I took some sody water one of the neighbors told me about. Was afraid to take the salts; they say it thins the blood. Would have headed you off and saved the expense of a trip if I could. Doctor bills keep a man's nose to the grindstone, and are especially hard to pay where

a man don't get anything for his money."

The Doctor unconsciously sidles over to a shotgun which stands in the corner, with murder in his heart. All the laws of justice and fair dealing prompt him to seize the weapon, place it firmly against Hank's abdomen, and blow his brains out. But he reasons with lightning quickness, even while his hands instinctively reach for the weapon, and a wave of civilization and sanity bears down upon him and stays the act which would have been looked upon by the laity as a crime, but which the profession knows would have been a righteous act of justice.

Mrs. Smith is now up and busily engaged in making a cup of coffee for the Doctor, which he is much in need of.

Chuckling grimly, he guides the old car back over the tricky gumbo roads, at a speed anything but conservative.

Arriving home, a light on his front porch is mute evidence of the fact that another call awaits him, and that friend wife holds the key to the situation.

The Doctor learns that they have been trying to get him out at Bill Hoskins for the past hour—that Mollie Hoskins is very bad—has been having spells for two hours, and it is all the hired man can do to hold her.

"For God's sake, come as quick as possible."

The Doctor is bothered. Bill Hoskins is one of his best families, and it will not do to refuse to answer the call. Nevertheless he knows right down in his heart that Mollie needs a good paddling more than she does pleasant tasting tablets. And that the hired man should be punished as an accessory to the crime, even though an innocent accessory.

How well the Doctor knows the train of events leading up to these spells. How often has he gone through the excitement of these frenzied rural calls for help, when some unsophisticated country maiden, in the reaction following a quarrel with the hired man, has put on a high tension performance.

How often has he seen the dramatic intensity of the lovesmitten maid, with head thrown back convulsively, eyes rolling wildly hands clutching at throat and tearing at hair; relaxing only at occasions to throw her arms wildly about the hired man and press her face to his, muttering incoherently, "Mother! Mother!" The h. m. with perspiring brow but responsive nature, meets her more than half way, and in his

freckled, red-faced, concern crudely attempts to quiet the girl, who has lost her self-control but can still cleverly capitalize her histrionic ability.

It is an old story with the Doctor, and he can foresee in his mind's eye the symptom complex, treatment, and prognosis, when still five miles away.

Nevertheless he makes haste as rapidly as possible, opens the gates and bumps along through Jim White's big pasture, saving two miles by the short cut, and incidentally not missing a badger hole.

A number of neighbors are gathered in the yard. One steps forward and hoarsely whispers:

"Git in there as quick as you can, Doc: she's about gone."

The Doctor, decorously concerned and sympathetic, enters the little home. Well meaning neighbor women are rubbing the limbs, and bathing the feet in hot water; audibly wondering how a person can live through those awful spells. With one exception. Aunt Sara Griner looks on with stony face, and contemptuously sniffs. She knows.

Aunt Sally remembers well five years before when a neighbor's daughter succumbed to the lure of a harvest hand, and when it was learned the latter had a wife and three children in Joplin, Mo., a heart breaking performance similar to this was put on.

Aunt Sally had helped, in her poor rheumatic way, to alleviate the terrible sufferings of the girl, and even after the Doc had whispered inside information, she could not believe it was hysteria. But when once convinced, no love-smitten actress of the kitchen could ever hope to get by afterwards.

She also has stared down the road waiting grimly for the Doctor and his trusty hypodermic. She doesn't understand it therapeutically, nor does she care to. She only knows that Doc can put a tiny tablet in a bit of water, thence to his hypodermic syringe, firmly take hold of the soft arm that spasmodically clutches the neck of the hired man, gently push the plunger home, meanwhile quietly move the coal bucket, or other convenient receptical, a bit nearer the sufferer, and await results.

Aunt Sally knows what will happen, and the Doctor does not fail her in this case. The wild look on Molly's face begins to subside, a pallor creeps over the lips, the rigid throat muscles relax, and rapid attempts at swallowing are made. A look of un-

certainty is plainly apparent in the eye of the patient. And with a despairing fling, sentiment, love and romance flee; and potatoes, green corn and home cooking take their place.

The spell is over, and Aunt Sally gives the Doctor an admiring and triumphant look. Parents breathe easier. The hired man, a bit gaggy himself, beats it outside. And neighbors who had planned to stay for breakfast, which is two hours away, are put in an uncomfortable position.

The Doctor leaves an inert tablet, similar in appearance to the one he has just given, tells the parents it is to produce nausea as the previous one had done, and is to be given if any more spells come on; carefully puts the magic hypo back in his pocket, and prepares to start back. Mollie, pale, haggard and limp, gives him a wan look as he bids her goodbye.

He is met out at the barn by the hired man. Here now ensues a battle of wits. The h. m. desires information, and thinks he will disguise himself as a friend of the family and pump the Doc.

The Doctor is too good a sport to give away any information that will cripple the girl's chances in the strenuous campaign she is conducting. Besides, he doesn't like hired men. They have been the cause of his losing too much sleep in the past. He hates the pungent odor of the hair oil they use so lavishly. He hates the rattle of their celluloid cuffs, when he has to shake hands with one of them in town. He hates their cheery good nature, and their open honest countenance. But most of all he hates them because they create havoc in the hearts of the susceptible country maidens. These girls the doctor has seen grow from tiny red-faced babies, through freckled toothless childhood, to ripe young womanhood. And they are part of the Doctor's life and must be guarded.

During the early years of the Doctor's practice his diagnostic acumen was not so keen, and he had made a number of errors in placing the proper nomenclature on these spells.

He had even taken on an intense concern, equal only to that of the parents, and worked with these hysterical individuals for long hours, exhausting every therapeutic measure; trying to save a life, and incidentally establish a reputation as a learned physician.

As years crept on, and mature judgment succeeded the theory of callow youth, the

Doctor recognized these spectacular performances for what they really were.

(To be continued.)

R

UNIVERSITY OF KANSAS CLINICS

Surgical Clinic of Dr. Arthur E. Hertzler and Dr. Lawrence P. Engel.

Case 1. Male aged 30, complains of a tumor of the left gluteal region.

Present Illness.—About two years ago the patient noticed a tumor of the left hip. Since then the tumor has gradually enlarged. There has been no soreness nor pain. Recently he has noticed a small tumor above the middle of the crest of the left ilium and one at the angle of the left scapula. His general health is good.

Physical Examination.—General examination is without interest. A hand's breadth posterior to the trochanter is a semi-elastic tumor about 3 by 6 inches. It seems deeply seated and the borders cannot be definitely defined. It is not tender. When the gluteal muscles are made tense the outlines of the tumor disappear. The small tumors above noted are the size of a hickory nut, are semi-elastic, not tender, and lie just beneath the skin. Laboratory examinations were wholly negative.

Diagnosis.—We have to deal with a semi-elastic tumor lying beneath the gluteus maximus muscle. Its elasticity suggests a lipoma but its deep situation suggests a myxoma or a lipomyxoma with possibly more active mesoblastic elements. The smaller tumors above noted are round, sharply defined and semi-fluctuating. These are evidently lipomas. The presence of these tumors lends force to the assumption that the large tumor of the hip belongs to the lipomyxoma group.

Treatment.—Under local anesthesia an incision was made over the highest point of the tumor in the direction of the fibers of the gluteus maximus. The muscle fibres were separated by blunt dissection until the tumor was exposed. The tumor together with its capsule was dissected loose. Wherever the capsule was attached to the muscle a portion of the latter was removed along with the capsule. The tumor extended by a prolongation of its capsule to the connective tissue about the capsule of the joint.

Gross Pathology.—Material consists of an encapsulated, bosselated tumor measuring 10x 7x3 cm. Pieces of muscle tissue are attached to one border. On section the tumor is composed of incomplete lobules of soft, areolar and myxomatous tissue intermingled with a rather unusual amount of

edematous fibrous tissue. The center of the tumor is somewhat softened and has a semifluid consistency. As the periphery is approached the fibrous tissue is increased in amount. There is no evidence of capsular incision.

Histology.—The section shows interlacing bundles of young connective tissue cells and fibers with here and there a tendency towards a myxomatous change. In some places there is considerable edema also some fibers can be seen between some of the swollen edematous connective tissue cells. Many young connective tissue cells are seen here and there but there is no evidence of a malignant change, though there is a considerable amount of cellular tissue in many places. There is some hyaline degeneration in a few foci.

Prognosis.—The complete removal of the tumor together with its capsule results in a cure. Should recurrence take place, renewed early wide excision should be practiced. The x-ray is wholly useless in this type of case.

Comment.—The interesting phase of this case is the location. This tumor group is commonly found in the abductor muscles of the thigh, less frequently in the retroperitoneal space. In the buttocks they are relatively rare. The clinical importance lies in the tendency to develop into a sarcoma. This is particularly likely to occur if incompletely removed. Any part of the capsule which is allowed to remain is apt to develop an early recurrence and with the recurrence a tendency to sarcomatous change. The obvious indication, therefore, is to remove the tumor together with the capsule. The smaller lipomas are without interest save that they develop in an individual the host of a more important tumor. Pure lipomas are not uncommon in patients with fibromyxomas and give a certain hint as to the possible nature of a deeply lying tumor. Not infrequently these tumors show complicated interdigitation extending between the various planes of muscles. Each of these must be carefully dissected out for if one such part remains recurrence is certain.

Case 2. Male aged 56 comes because of a tumor situated in front of his right ear.

History.—The patient has had a swelling in front of his right ear ever since he can remember. At first it was barely perceptible but during the last several years it has been getting gradually larger until now it is about the size of an egg. Patient wishes it removed for its cosmetic effect and because

he is unable to sleep on his right side because of discomfort.

Examination.—There is a swelling in front of right ear the size of a lemon. It fits snugly about the angle of the jaw being partly fixed by hooking under it. The surface is somewhat bosselated. The tumor is firm, somewhat elastic. There is no tenderness.

Diagnosis.—The long history, its situation and its bosselated surface stamp it as a mixed tumor of the parotid. Some of the nodules are firm, suggesting malignancy, but there is no apparent invasion of the surrounding tissue and no metastases.

Treatment.—The field of operation was carefully infiltrated with novocain and a curved, right angled incision, with the lower lip extending anteriorly along the body of the mandible, was made over the parotid swelling. The dissection was carried out very carefully until the facial nerve was located which was then retracted upward out of the field of operation. The parotid gland was divided and beneath it was found a nodular tumor the size of a lemon. The tumor was fairly well encapsulated and was shelled out without much difficulty. The parotid gland was then sutured and the fascia closed with 0 catgut and the skin with interrupted mattress sutures. The patient had no pain during the operation and left the table in good condition.

Gross Pathology.—The specimen is irregular, spheroidal with multiple nodules varying in size from half a pea to half a hazelnut. The general color is light pink with whitish areas. It measures 7x6x5 cm. The cut surface is mottled pinkish with whitish areas between. In the latter are translucent areas.

Histology.—The slides for the most part are made up of cellular masses in nests and columns. Many areas of considerable extent show myxoid areas with areas staining deeply bluish. In the myxoid areas the cell columns show a network. **Diagnosis,** mixed tumor.

After-course.—Healing was uneventful but it was noticed that after the operation there was complete paralysis of the facial nerve. The nerve was identified during the operation and was known not to have been severed. However, it was necessary to stretch the nerve considerably in order to lift it off the tumor. It was assumed, therefore, to have been unduly stretched. This proved to be the case for after some months the nerve regained its tone.

Comment.—The chief point of interest in

this case was the temporary paralysis of the facial nerve. The large size of the tumor caused an undue stretching of the nerve. The early appearance of the tumor, likewise is worthy of note.

—R—

Clinic of E. T. Gibson, M.D.

Assistant Professor of Neurology

MYASTHENIA GRAVIS.

W. M., male, aged 36, married, reported January 18, 1924, complaining of general weakness and double vision.

Present illness.—He was very well up to November, 1923. About this date his hands and arms gradually became weak and shortly afterward he felt weak in the knees. He observed that if his knees were bent a little he fell to the ground if he attempted to support any additional weight. This weakness gradually increased for a month and has remained stationary since. He thinks his right arm and leg are weaker than the left.

At the same time as the weakness in his limbs, he began having difficulty in lifting his right eyelid, and on looking into the mirror he noticed that his right eyeball had sagged down below the level of the left. He had to arch his eyebrow to keep the lid up, and when using both eyes he had double vision, one image being above the other.

These symptoms vary in intensity. They are always relieved by rest, but continued effort intensifies them very rapidly. When he gets up in the morning he usually feels strong and has little trouble with his eyes. As he walks about, the weakness quickly appears, and the lid-drop and double vision become more marked. His jaws get very tired chewing. He was forced to quit work about the first of January, because after working an hour or two he was no longer able to handle his tools.

Medical History.—He has always been healthy and used to hard physical work. The only illness he can recall was a period of a few days in 1913, when he was restless and did not sleep well, and had nausea and gagging before breakfast. In August, 1923, he was nervous for about three weeks. He attributed this to worry because he was out of work. At this time he complained of queer feelings moving upward from the stomach, and double vision. He says that the right eye turned up for a while and then down. In the interval between the illness and November, 1924, he was perfectly well. He has never used alcohol, and denies venereal disease. His wife is in good health ex-

cept for "catarrh of the bowels," but has never been pregnant.

Physical Examination.—Mr. M. is seventy-one inches tall, and weighs one hundred ninety pounds. Fat is deposited especially about mammae and hips, thighs are rounded, genitals small, and hair line horizontal. There are no apparent atrophies. No adenopathy. No genital scars. There is ptosis of the right lid. The right eyeball is below the level of the left, and does not turn above the horizontal. The pupils are of equal size, circular in outline, and react normally to light and on accommodation. Ophthalmoscopic examination shows normal discs, blood vessels and pigmentation. The cranial nerves are otherwise normal. Tendon reflexes in upper and lower extremities are more active than normal, but are equal on the two sides. No pathological reflexes are found. When the reflexes are tested repeatedly, the response rapidly becomes weaker and is completely exhausted. The response to faradic stimulation quickly diminishes on successive tests, on the right side first. Motor power is fairly good at first, but diminishes rapidly when the tests are continued. After twelve or fifteen grasping efforts, Mr. M. is hardly able to close his hands at all. The right side becomes exhausted first. Sensations when tested by cotton and pin prick show no abnormalities. There is no ataxia, asynergy, or dysmetria and no interference with the gait, except that due to weakness.

Spinal fluid was withdrawn by lumbar puncture January 22, 1924. It was clear and under a pressure of 8 mm. Hg, with patient sitting. The examination as reported by Dr. W. K. Trimble was:

Wassermann—Negative.

Lange—Negative.

Globulin—Negative.

Cell Count—2.

X-ray examination made February 14, 1925, showed no enlargement of the thymus gland. February 20, 1925, Dr. Watson Campbell reported creatinine content of blood 1.4, calcium 14.4.

Diagnosis.—This patient gave at first the impression of a paralysis of central origin, but upon examinations and especially upon a study of the history, this view was evidently incorrect. The occurrence of diplopia in August, 1923, with complete recovery, but with reappearance fifteen months later accompanied by ptosis and general weakness, does not correspond with the normal course of a brain lesion. The fluctuations in severity, with fatigue and

occasional complete disappearance of the symptoms with rest, the reduction of the reflexes upon repeated testing and the rapid progression in motor weakness in successive trials, are not consistent with diseases of the central nervous system. The distribution of the symptoms also is such as to throw doubt upon their central origin. Examination shows weakness in part of the muscles supplied by the third cranial nerve, subjective weakness of the motor fifth nerve, and a demonstrated abnormally quick fatigability of the muscles of all extremities, whether tested by voluntary movements, by tapping the tendons for reflexes, or by faradic current.

The main trouble in this case seems to be a very rapid exhaustability of certain muscles, which is so marked that in some muscles it produces a pseudo-paralysis. This condition is myasthenia gravis.

Nothing definite can be said as to its cause and pathology. Various pathological and metabolic abnormalities have been observed, but they are not constant. Among them as lymphocytic infiltration of the affected muscles, enlargement of the thymus gland, diminished creatinine in the blood, and an increased calcium content in the blood.

Views as to treatment differ and are sometimes diametrically opposed. The most recent collective study with reference to treatment is that of Dana (J.A.M.A., 78, January 28, 1922, p. 261-263). He advocates large doses of strychnin, up to $\frac{1}{2}$ grain daily.

Mr. M. has been given strychnin and injections of sodium cacodylate. His condition has varied somewhat, but is now (July 1925) no worse than when he was first seen.

The case brings out the fact that myasthenia gravis may continue as a comparatively mild disorder for long periods, and that it is subject to intermissions, during which the patient is perfectly well. The disease is brought into relationship with myotonia because both are disorders of the contractility of muscle, though the symptoms are widely different. Dana mentions a case in which myasthenia gravis was associated with myotonia in the same patient.

HISTORY OF THE KANSAS MEDICAL SOCIETY

• (Continued from page 264.)

The seventeenth annual session of the Society was held in Library Hall, Topeka. The Society was called to order at 3 p. m., May 15, 1883, by the President, Dr. G. W. Haldeman.

There were forty-one members present at roll call and during the session fourteen applicants for membership and four honorary members (from Missouri) were admitted.

It was reported that the State Society of Missouri was holding its annual meeting at the same time. A motion was offered that efforts be made to arrange for meetings of the two societies so that they will not conflict. Several delegates to the next annual meeting of the Missouri State Society were later appointed.

Only a few papers were read at this meeting and they have not been preserved. Mention is made in the minutes of a public address having been delivered by Dr. J. A. Lane on the subject of "Marriage and Divorce." It seems to have been the custom to appoint some one each year to deliver a public address at the next annual meeting. Whether these addresses failed to interest the public as was expected, or for some other reason is not stated, but the nominating committee recommended that "hereafter the appointment of a public orator be abolished" and the recommendation was adopted.

A resolution to amend the constitution so that the State Capital should be the permanent meeting place of the Society, after considerable discussion, motions to amend and motions to table, was voted down, as was also a resolution to amend the constitution so "that the annual meetings of the Society shall be held at the State Capital on alternate years."

At the previous annual meeting a committee on medical ethics had been appointed and this committee presented as its report the following resolution:

Resolved: That we reaffirm our adhesion to the Code of Ethics of the American Medical Association.

Resolved: That said Association be requested to refer a revision of the Code of Ethics to the Judicial Council or to a special committee to report at the annual meeting in 1884.

One of the most important features of this meeting was the adoption of a resolution offered by Dr. Schenck that the "Committee on Publication be and hereby are instructed to collect and publish in a neat volume the transactions of the Kansas Medical Society from its organization, and furnish a copy of the same to each member of the Society and to each of the public libraries of the State, provided there are funds enough in the treasury."

This was considerable of an undertaking,

but the task was accomplished and the first volume was published in 1884, covering the period from the organization of the Society to and including the transactions of the annual meeting of 1877. The second volume was published in 1888 and included the records and transactions from 1878 to 1888 inclusive.

The election of officers resulted in the choice of D. W. Stormont for president; W. S. Mendenhall and Deborah K. Longshore for vice-presidents; F. D. Morse for secretary; C. H. Guibor for assistant secretary and W. W. Cochrane for treasurer.

At this meeting twenty-six delegates to the American Medical Association were appointed.

The eighteenth annual session of the Society was held in Wyandotte, May 20 and 21, 1884. There were forty-four members present at roll call and during the session fifteen new members were admitted.

It was the custom to appoint each year's committees to prepare reports on the advancements that had been made in the various branches of medicine, so there were regular committees on Practice of Medicine, Surgery, Materia Medica, Obstetrics, Physiology; and there were special committees on Diseases of the Eye, Therapeutics, Gynecology, Nervous Diseases, Public Hygiene and other subjects that might be proposed. Usually the reports submitted had been carefully prepared and showed that the members of the committee had kept in touch with all that was new or promising on the subject assigned to them. At this meeting, however, not one of the regular committees had prepared a report, although three of the special committees did report.

The minutes of this meeting mention the fact that Dr. A. L. Fulton read a paper entitled "Are Bacilli the Cause or the Product of Phthisis?" which was thoroughly discussed. That was a subject that was being discussed in many society meetings in those days.

The election of officers, which was only nominally an election since the officers were selected by a nominating committee whose report was usually adopted, resulted in the choice of C. H. Guibor for president; Hannawalt and Hill for vice-presidents and the re-election of F. D. Morse and W. W. Cochrane for secretary and treasurer respectively.

Pursuant to a motion that had previously been introduced and carried, the Society adjourned "to meet in Topeka on the third

Tuesday of January, after the assembling of the Legislature."

The adjourned meeting was held at the Press Club Rooms in Topeka on January 20, 1885. Thirty-four members were present and twenty applicants were admitted to membership. Three practitioners from Missouri were made honorary members.

A question of standing was raised in regard to members who had moved from Kansas to Missouri. The motion was then introduced and carried "that simple removal from the state does not necessitate a loss of active membership?"

A committee was appointed to visit the physicians who were members of the Legislature, presumably in the interests of a pending bill to regulate the practice of medicine.

A committee which had been appointed at the annual session to "memorialize" the Legislature and prepare a bill to be introduced, reported but the records do not contain a copy of the memorial or the bill. It would seem from some of the secretary's note that the state societies of the other schools of medicine were not in favor of the proposed bill. At any rate it did not become a law.

On May 19, 1885, the annual session of the Society was held at McPherson. There were eighteen members present at roll call. Five more members came in during the session and fifteen applicants were admitted to membership.

The program was made up mostly of reports of committees, but there were a few case reports.

Dr. H. O. Hannawalt was elected president. Dr. C. V. Mottram and S. W. Day were elected vice-presidents. The secretary and treasurer were re-elected.

The Society adjourned to meet in Topeka during the session of the Legislature.

The adjourned meeting was held in Topeka January 11, 1886. There were nineteen members present, five new members were admitted and two more Missouri physicians were made honorary members.

A committee which had been appointed to prepare a bill to regulate the practice of medicine made a report with a draft of the proposed new bill. After much discussion it was referred back to the committee to be reported at the regular annual meeting in May.

Several papers were read and some interesting cases reported. Considerable discussion was occasioned by the report of "some points of interest that had been

brought out in the recent trial in Atchison in regard to the possibility of death from chloroform inhalation."

(To be continued.)

R

Oculists or Optometrists—Which?

James M. Patton, Omaha (*Journal A. M. A.*, Aug. 22, 1925), believes that the majority of optometrists are in the main making an honest effort, through preliminary training and the establishment of definite standards of ethics and proficiency, to render service to the public. However, during the last five or six years there has been a growing activity on the part of certain optometrists, some of whom hold official positions in state optometric organizations, which can be interpreted only as an attempt to restrict the rights of the regularly licensed oculist so far as the fitting and prescribing of glasses is concerned, even looking forward to the time when all oculists will be compelled by law to pass an examination before the board of optometry of the state in which he may be located. The status of optometry in each state is reviewed by Patton. He concludes by saying: Let us remember that there is an active group of influential optometrists who are perfectly willing to prevent by law all who are not registered optometrists from fitting glasses, and that active measures are contemplated to compel the oculist to pass their boards, before he can legally practice this phase of his profession. Let us be suspicious of bills regulating optometry containing ambiguous clauses, or those restricting the rights of manufacturing opticians who ordinarily serve the oculist. Let us remember that ours is a profession and not a trade. We cannot afford to face the charge of making a profit out of the glasses we prescribe, but we do have the right to protect our patients from the exorbitant prices and high pressure retail sales methods of the optometrists. We must be awake to the situation; and, while we may have no quarrel with the optometrist who limits himself strictly to his own field, at the same time, we owe it to our profession and to our patients to forestall any legislation which will limit the fitting of glasses to a single group.

R

Health in Relation to Citizenship in Urban and in Rural Communities

John A. Ferrel, New York (*Journal A. M. A.*, Aug. 15, 1925), summarizes his paper as follows: Public health is one of

the major community interests. Community funds wisely used for health service yield large returns. The scope of the health service will vary with problems, resources and the public conscience, but in all cases should include basic activities. In the interest of economy and efficiency, the political unit should be large enough to permit the employment of a well rounded unit of trained full-time personnel. The cost of the service should be assumed jointly by the state, county and towns on an equitable basis. The rural community is economically handicapped, so that unaided it cannot finance health and other services approaching in adequacy that of urban communities. It is being abandoned to an alarming degree. The urban community cannot enjoy its present prosperity and civic advantages indefinitely unless its outlying country which furnishes foods, raw materials and markets is afforded similar advantages. The urban and rural communities have a common interest in the equalization of taxation and also of facilities for health and for educational, social and economic welfare. This should be accomplished through the larger political unit, such as the state. Experience in this direction has been encouraging. The plan should be extended.

R

Demonstration of Female Sex Hormone in Circulating Blood

R. T. FRANK, M. L. FRANK, New York; R. G. GUSTAVSON and W. W. WEYERTS, Denver (*Journal A.M.A.*, Aug. 15, 1925), have been able to show that the female sex hormone is present at times in demonstrable quantity in the circulating blood. The hormone is present only in great dilution. From the blood of five sows in estrus and the blood of one bull, an alcohol benzene extract was made and injected into one or more castrated rats and the vaginal smear watched. None of the anestrus bloods, or the male blood, gave a positive reaction. Of the five bloods obtained from estrous animals, four gave positive results with a total dosage of 75 mg. of crude extract. With present methods of extraction, at least 300 c.c. of estrous blood is necessary for the test. Even with the present crude and not quantitative methods of the female sex hormone can be recovered from the circulating blood, and (2) the quantity in circulation is greater during estrus than during the interval.

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W. E. McVEY, M.D. - - Editor

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THE EVOLUTION OF THE DOCTOR

When he flourished, in his prime, no words of gratitude were set to rhyme, no thoughts of services sublime, for the old time family doctor.

He did his duty as he saw it, received no thanks or praises for it, 'twas so expected, so he gave it—the one time family doctor.

But now they tell of him in song and story and they crown with honor, praise and glory the head that now is grim and hoary—the old style family doctor.

They confer without restriction honors great and great distinction on him who now is near extinction—the grand old family doctor.

It is said that the family doctor is passing. With equal truth the same might have been said fifty years ago, if by that term one means the type portrayed by Ian McClaran, one who was his own pharmacist, who was surgeon and physician, who was obstetrician, pediatricist, oculist, dermatologist, dentist, etc., but he is not yet extinct. For, divested of the romance and sentiment with which the author clothed him, the prototype of William McClure may still occasionally be found in the sparsely settled Ozark regions, in the mountain settlements of Tennessee and other similar country

where circumstance and necessity rule.

Although the family doctor was the predominant type of medical servitor fifty years ago, the process of evolution has already made significant changes in him. Pharmacy was becoming an art and more exact and more palatable compounds were replacing the extemporized and nauseous drugs of the doctor's own manufacture. There were dentists then and an occasional oculist to whom some of his cases might be sent. Surgeons could be called from the larger towns when occasion required. The old gray mare, as a means of conveyance, had been supplanted by the buggy and team and the saddle bags were seldom in evidence. Better railroad facilities had brought him in closer touch with the progressive men in the cities and he was able to keep informed about the newer remedies and the improved methods.

Twenty-five years ago the family doctor was still much in evidence though his practice had been considerably depleted by the demands of the people for the services of specialists in various branches of medicine.

Even now the family doctor predominates, but the family doctor of today has little resemblance to the original type. The practice of the specialist is limited by choice, or convenience, or policy; the practice of the family doctor, the so-called general practitioner, has been limited by the inroads of the specialists, by the choice of the people, and in the rural districts by the increased facilities for reaching the hospitals and the larger towns and cities.

The general practitioner has in a sense become a sort of jobber or middle man, who distributes a large per cent of the cases he sees to the surgeon and the specialists. It is not his fault. He may be competent to do better surgery than the man to whom he sends his cases, he may be a better oculist or a better laryngologist, he may be better posted in pediatrics or dermatology than the specialists available, but the people do not know it and they demand the services of specialists.

For the greater part of a century the family doctor has been passing, not through a process of decadence but a process of evolution—a process of evolution dependent upon conditions over which he had little if any control, and with which the medical profession as a whole had nothing to do.

Any theory that the advancement or standardization of medical education has been responsible for the passing of the family doctor is inconsistent with the fact that there was practically no changes in the curriculum, at least none that could affect the type of graduates turned out, until fifteen years ago.

It has been stated that doctors are deserting the rural districts for the cities or, at any rate, the number of physicians in the small towns does not increase in the same proportion as the population, while in the cities the opposite is the case. This condition of affairs cannot certainly be ascribed to the high standard of medical education until at least other more probable factors have been eliminated. The automobile and good roads have made it easy for the people to reach the doctors in the cities. The people have largely deserted the family doctors in the small towns for the city doctors, just as they have deserted the general practitioners in the cities for the specialists. Realizing that his patrons are deserting him and going to the city for all but emergency requirements, the doctor in the small town removes to the city and thus, if he moves early enough, is sometimes able to hold the business he would otherwise have lost. From a Kansas newspaper of recent date, which announced the removal of the only doctor in the community for thirty-six years, we quote the following: "B——, like all other small communities has been injured by the automobile and good roads. The people simply go to the large towns to do their business."

From the tone of some of the articles that have recently been published, one is convinced that there are quite a few men, some of them prominent in the profession,

who seem to think the present standard course of medical education should be abbreviated and should be remodeled so as to graduate some type of family doctor. If the old type of family doctor is in the minds of these advocates of retrenchment, the effort will be quite futile. One might convert a few well equipped and profitable farms into ranches for raising and training carriage horses; of course there is an occasional demand for a few carriage horses, and there are still a few communities where one of the old style family doctors could be placed; but it would be as unprofitable and as hopeless an undertaking to convince the people that their ills would be as well cared for under the old regime as to persuade them to discard the automobile for a carriage and team.

If it is the purpose of the propaganda to produce a new type of family doctor, one who is competent to treat everything, an all around specialist, then the course of instruction will need to be lengthened about four years.

But a careful digest of the various opinions that have been volunteered leads one to conclude that the kind of doctor contemplated by at least some of these critics of our present system of medical education is quite different from either of these types. They would so curtail and condense the course of instruction that the graduates turned out would be unable, would not know enough, to compete with the doctors in the cities. They would have to go to the small towns and stay there, be small town jobbers for the specialists and eminent surgeons and internists in the cities.

There are two very serious obstacles to the development of such a plan. The men who are studying medicine, and those who are contemplating the study of medicine, are not the kind of men that would be satisfied with a curtailed and abridged course of instruction. That is the first obstacle. The second one is to be found in the people who have learned what good medical service means. They have gotten too far away from the old regime to be satisfied with

that type of family doctor. In spite of the apparent confidence in the cults, the people want the best trained men available when they find there is something seriously wrong with them.

Attention has been called to the fact that among the best practitioners, the best teachers, the best clinicians of today, are men who graduated thirty or more years ago, from a two, or at least a three year course of lectures; but the student of today, in order that he may start on an equal footing, must learn in his four years course all that these older men have learned from their study and practice during that thirty or more years, in addition to what they learned in their two or three year course of lectures. And if one stops to think of the advances made in the knowledge of medicine during the past thirty years he must admit that it is something of an undertaking.

None of us knows too much about medicine, very few know enough, most of us know entirely too little about it. And yet one of the objections to the standard course of instruction is that the students are overtaught, or overtrained; that their training has been too technical for practical application in rural communities; that without the laboratory facilities to which they have been accustomed, and out of the hospital environment, they are incompetent. This inability to cope with the conditions found in a rural community is not due to over training, but lack of training and suggests that something should be added to the course rather than that something should be deleted. In the old two and three year courses of lectures, in the teaching of diagnosis, the method called "observation" was particularly stressed. Students were thoroughly drilled in the use of their special senses, they were taught the significance of details that were obvious. The practitioners of thirty years ago, not having many of the technical aids to diagnosis had to rely upon what they could see and hear and feel. It was the acuteness and

accuracy of their sense perception that determined their skill in diagnosis.

One of the most prominent men in the medical profession, who graduated more than thirty years ago, is credited with the statement that he would undertake to diagnose eighty per cent of all cases with his five senses and without even the aid of a test tube. One may safely venture the assertion that if the graduate from a modern medical school had the same training in the use of his senses, he would, with his added technical knowledge and skill, make a larger per cent of *correct* diagnoses than the old timer.

It is obvious that neither the clinical instruction in the medical schools nor the hospital intern service particularly qualifies the student for practice in a strictly rural community. However, this fact does not in any manner lessen the value of such instruction nor does it necessitate the abridgment of the course of instruction. It is a condition that can easily be corrected if the states that require a year of hospital internship as a prerequisite to licensure would recognize as an alternative a year of practice in a rural community or industrial settlement. In fact, it is not at all certain that a year of practice of that kind would not be of more practical value to the recent graduate than the hospital service.

The most common criticism of the standardized course of medical education is that it requires too great an expenditure of time and money; that the investment is out of proportion to the average income of the practitioner. This criticism is no doubt based upon reliable data, but being true it does not justify the initiation of a retrograde metamorphosis in the medical profession. It does very plainly demonstrate the necessity for a complete reconstruction of our business methods. It will be necessary sometime to adjust them to modern conditions. Although every thing else has changed, and the science of medicine has made wonderful progress, we are still trying to practice medicine on the same principles, by the same system of charging for our services, and with the same lack of

cooperation, that characterized the practice a hundred years ago. The country doctor charges by the mile, like a taxi driver, without regard to whether he is treating a case of typhoid fever, a case of pneumonia or a case of mumps. The city doctor charges so much for a day call and so much for a night call, without regard to distance or the kind of case he sees or the service rendered. The lawyers have a better plan than the doctors, for they charge a retainer fee and then add regular charges for the services rendered.

Until better business methods have been adopted, until the diversified talents in the profession have been properly grouped on some ethical and equitably remunerative basis, no one is justified in advocating a retrenchment in medical education, especially when such retrenchment must be secured at the expense of efficiency.

CHIPS

The intrinsic value of the human body is less than that of a shoat.

Chemists say that hypochlorite of sodium is a radio-active substance and that its anti-septic property is due to the emission of a variety of rays.

Man gave a bone to make a woman and now she takes every bone he brings home on pay day. One good turn deserves another.

Statistics for 1923 show that the death rate from cancer has steadily increased for twenty-three years. In 1900 the rate was 63.0 and in 1923 it was 89.4 per 100,000. The death rate from cancer of the stomach and liver was 34.1, from cancer of the female genital organs it was 12.6, and from cancer of the breast 7.9 per 100,000.

The total number of deaths in the registration area was 86,754 and of these 37,990 were in males and 48,764 in females.

Cyanogen gas, in spite of its well known poisonous action, has been used in New York for fumigation. Fifteen deaths have occurred there since January, 1922, from the use of this gas in fumigation. It is claimed that formaldehyde does not destroy vermin and that sulphur dioxide, while it destroys vermin, damages clothing. But then a live man without clothes is worth more than a dead man with clothes.

A preacher complained to the German elder of his church that a member of the congregation had called him a perfect ass. The advice of the elder was: "Vel, be batient mid de brudder and bray for him as usual."

The newspapers recently published some news concerning the treatment of paresis at Long Island College Hospital. According to this report, thirty out of sixty paretics have been apparently cured by the malaria inoculation method of treatment. If this newspaper report is correct the success attained at the Long Island College Hospital is somewhat better than others in this country have succeeded in getting from that method.

In a paper that appeared in the August number of the *Illinois Medical Journal*, Crile describes the similarity of phenomena accompanying the incidence and course of peptic ulcer and the incidence and course of hyperthyroidism. Hypersecretion seems to be the central feature in each. On this analogy and the favorable results following thyroidectomy he justifies the substitution of gastric resection for gastro-enterostomy, in both duodenal and gastric ulcers for the definite purpose of reducing hypersecretion. As in hyperthyroidism operation is but one factor in the treatment and recovery demands prolonged control of the patient, with enforced rest, prescribed diet and adjusted environment. m m

In a paper discussing the value of blood pressure determinations, in the *Texas State Journal of Medicine*, August number, R. Stuart Adams states that surgery tends to lower blood pressure and the depression begins from five to twenty minutes prior to any other symptom indicating impending shock. Ether, nitrous oxide-oxygen, and ethylene cause a rise of blood pressure during the first fifteen minutes, most marked with nitrous oxide. Prolonged ether anesthesia causes a distinct drop in both systolic and diastolic pressures and an increase in the pulse rate. Spinal anesthesia causes an extreme drop in blood pressure and is contraindicated in low pressure cases. He believes that extremely valuable information will be obtained by routine charting of the pulse, respiration and systolic and diastolic pressures.

The clinical cure of twenty-nine out of fifty-five cases of osteomyelitis, and improvement in twenty-five others, resulted from the treatment with aluminum-potas-

sium nitrate, according to a report by Max Thöek in the August number of the *Illinois Medical Journal*. The aluminum-potassium nitrate is made by dissolving potassium nitrate and aluminum nitrate in proper proportions in hot nitric acid, from which the double salt is crystalized out on cooling. It is non-toxic and is applied to the affected area mixed with a mush made of sterilized rolled oats and hot water. The reaction is shown at first as an erythema with marked increase in the discharge from the affected part, and later by softening and pustulation of the tissues.

Poultices were once regarded by the profession and are still regarded by the laity, as of considerable therapeutic value in conditions like those treated by Max Thöek with his aluminum-potassium nitrate in oatmeal mush. Possibly if the old bread poultice had been made sterile it would have been less objectionable. At any rate the reactions described by him correspond very closely to those following the application of a poultice in the days when that kind of treatment was popular. The particular part played by the aluminum-potassium nitrate might be more certainly demonstrated if a few controls were treated with the sterile oatmeal mush alone.

Scott, in a study of the human stomach, reported in the *American Journal of Diseases of Children*, found that the surface area of the stomach mucosa increased about thirteen-fold between birth and maturity. The total number of gastric crypts increased about sixteen-fold, while the number of gastric glands increased twenty-eight fold between birth and maturity. The calculated number of crypts in the adult is 3,205,508 and the calculated number of gastric glands in the adult is 13,724,167.

There are quite a few people who believe in the infallibility of some one of a dozen or more methods for sex determination. However, their confidence is probably based entirely on chance occurrences, at least such must be the case of the chromosome theory has any foundation. According to this theory, all the body cells in the human female have forty-eight chromosomes, but in the sex cells when maturation takes place the ripe ova have but twenty-four. The body cells of the human male have forty-seven chromosomes and when maturation of the sex cells takes place there are twenty-three in half of the cells and twenty-four in the other half, resulting from the last division. If the sperm containing twenty-

three chromosomes unites with an ovum containing twenty-four the result is forty-seven or the beginning of a male. If the sperm containing twenty-four chromosomes unites with an ovum the result is forty-eight or a female. It has not yet been discovered how this combination can be controlled.

Calcium salts have been administered in the treatment of tuberculosis for various alleged reasons: To remedy deficiency; to lessen inflammatory exudate; to favor calcification of lesions; and to lessen sweating and diarrhea. But calcium is not considered as an essential remedy by critical students of the subject (Jr. A. M. A., Aug. 15, '25).

At a recent conference on tuberculosis of the National Association for the Prevention of Tuberculosis, held in London, Dr. Fergus Hewat, assistant physician Edinburgh Royal Infirmary, reported on the percutaneous application of tuberculin in the treatment of children, with well marked tuberculous cervical glands or other symptoms that pointed to a probable tuberculous infection. He had followed this treatment for five years. Moro's tuberculin ointment, made up from Koch's original old tuberculin, was rubbed into the skin below the clavicles and if a positive skin reaction was obtained, treatment was given once a week. The strength of the ointment was gradually increased as the reactions became less pronounced. There were no seriously objectionable results. Severe skin reactions were controlled with olive oil. The clinical picture gradually improved and in two or three months the parents reported general improvement in appetite, endurance and vitality.

The recently reported studies make it more than likely that suitably prepared parathyroid extracts contain a substance or substances that will afford complete replacement therapy in the case of the totally parathyroidectomized dog. The methods thus far developed indicate that any extract of fresh ox gland that has been made by a process of weak acid hydrolysis and is sufficiently concentrated contains more or less of the active principle. It has been proposed to use as a provisional unit of potency one one-hundredth of the amount of extract that will produce an average increase of 5 mg. in the content of calcium in the blood serum of the normal dog of approximately 20 kg. of body weight over a period of 15 hours. There should be no haste in a possible human application of the parathyroid hormone. Injection of even

very small amounts frequently repeated have invariably proved fatal to animals when the injections were continued (Jr. A. M. A., Aug. 8, '25).

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Survey of the Distribution of Doctors in Kansas

We have recently made a survey of the smaller towns of Kansas relative to the supply of physicians, osteopaths and chiropractors. The enclosed resume shows the fallacy of the statement that "on account of the stringent requirements of medical education the smaller towns will be filled up with osteopaths and chiropractors." Our table shows that in 49 towns of less than 300 people there are but one osteopath and three chiropractors—the latter practicing but part time. In 58 towns of between 300 and 1,000 there are six osteopaths and twelve chiropractors, showing that these practitioners seek the places where the milk and honey flow.

Of 49 towns of around 200 population, 12 had no doctor (Dorrance, Reserve, Niles, Harris, Basehor, Long Island, Partridge, Mont Ida, Welda, Aliceville, Hiattville and Hurson); 23 had one doctor; 15 had two doctors; 4 had three doctors; 33 reported needing no more doctors.

Of the group around 500 to 1,000 population, 58 towns reported.

No town reported no doctors; 7 towns reported but one doctor; 22 reported two doctors; 21 reported three doctors; 3 reported four doctors; 4 towns reported five doctors.

The largest towns reporting but one doctor are Moline, Toronto, St. Paul, Buffalo, Mount Hope, Kanapolis, Miltonvale, Severy and Lewis. These towns have from six to eight hundred population.

Conclusion: Practically all towns of Kansas having over 1,000 population have too many doctors. Towns having 500 population have sufficient and a few towns of 200 population or less could support a doctor but offer little in the way of good roads, good schools, good churches or satisfactory living conditions. Osteopaths and chiropractors do not locate in the smaller places. This survey was so made that towns without or short on doctors would respond.

J. A. SETTLE, M.D.

—R—

The Medical Rubicon.

BY THE PRODIGAL

The regular medical profession is sorely handicapped in the enforcement of medical laws. The evidence to convict the irregular

or quack has to be gathered by the regular. The jury, in considering the weight of the evidence, takes into account the motive and self interest of the prosecution's witnesses and governs itself accordingly.

It is almost impossible for the lay mind to believe that the prosecution of an irregular, although unqualified doctor, is not from selfish motives and mercenary, and to force people to employ the Regular.

"Freedom" is a slogan, although overworked that is hard to overcome. To choose whom you please to treat you is an inalienable right so grounded in the average American mind that it is held on to like a dog at a root or until grim death cuts the tie that binds.

There are a sufficient number of qualified black sheep in the fold to break the monotony of colors and fuz up the whole background, in the opinion of a large percentage of the laity. Hence they judge the whole profession and its motives by what seems to be rather than by what is.

The enormous expense piled up by hunguries, mistrials, freeing the accused and pardoned after unavoidable conviction, had to do largely, in California, with turning down the Regular profession by a majority of 100,000 votes, in its fight against the osteopaths and chiropractors.

In summing up the pros and cons, I am inclined to favor the action of the British Medical Association at its last annual convention, when it concluded to drop war against quacks. Neither will it furnish any financial aid for their suppression, but it does propose to prosecute members in its own profession who are addicted to opiates and those physicians who improperly prescribe habit-forming drugs and those physicians who are guilty of other immoral or criminal practices.

That is constructive professional conduct and effort. When a man or a profession confines his or its work strictly to his or its own business, success crowns the effort. When success crowns our efforts people take notice. They do not have to be told nor do they need their attention called to it. In attending strictly to our own business there is no division of effort. Our energies are concentrated—conserved. We can do more work and do it better.

By so doing we inspire confidence and instead of our assuming the leadership in matters of health and practice (for which we are qualified but not called by the people) leadership will be tendered us. The populace will be ripened for the occasion.

The bean must be taken out of our own eye before we can see clearly to pick the atom out of the other fellows' eye.

—R—

SOCIETIES

SHAWNEE COUNTY SOCIETY

The Shawnee County Medical Society held its regular meeting at the University Club, Tuesday evening, September 8.

Dr. W. W. Duke of Kansas City addressed the society on the subject "Diagnosis and Treatment of the Anemias." There was a very good attendance. The Secretary was instructed to order fifty or one hundred of the new A. M. A. Auto emblems with the name of the Society on the margin. Three new members were admitted.

Lincoln County Society.

The Lincoln County Society held a mid-summer meeting at Lincoln, August 13. There was a dinner in the evening for members and their wives, after this a business meeting was called and a short program given. Dr. J. D. Riddell of Salina. Councilor for this District, addressed the Society on the duty of members to county societies. Most of the members were present at the meeting. Dr. and Mrs. George W. Ryan, Dr. A. G. Wilcox, of Lincoln and Dr. J. D. Riddell were guests of the Society.

MALCOM NEWLON, Secy.

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DEATHS

Dr. C. F. Lusk of Lebo died August 17th at Newman Memorial Hospital, Emporia, Kansas. Dr. Lusk was graduated from Rush Medical College in 1884 and in 1885 began practicing medicine at Lebo.

Dr. Floyd B. McBride of Coffeyville, Kansas, died suddenly July 28, of heart disease. Dr. McBride attended Indiana Medical School and School of Medicine of Purdue University, Indianapolis, where he graduated in 1906. He was a past president of the Montgomery County Medical Society.

Dr. James H. Seright, of Kansas City, Kan., died July 19, of cirrhosis of liver and myocarditis at the age of 57. Dr. Seright was graduated from the University Medical College of Kansas City, Mo., 1897.

Dr. John B. Errin of Harper, Kansas, aged 85, died suddenly July 26. He was graduated from the Hahnemann Medical College and Hospital, Chicago in 1889.

PERSONALS

Dr. E. F. Day of Arkansas City has taken an extended trip to the western coast with his daughter who is on her way to China and other European countries where she will perform with the Denishawn dancers. The doctor will make the trip with her as far as Vancouver, B. C., and then return, via San Francisco, about the first of September.

Dr. C. R. Spain spent the months of July and August touring the northern states.

Dr. L. M. Beatson of Arkansas City left August 1st on an automobile trip through Minnesota and southern Canada and will return about September first.

The Cowley County Society will resume regular meetings on Thursday, September 17, at Arkansas City.

Dr. C. S. Bendure has moved from Bartlett to Baxter Springs. He has been the only doctor in Bartlett for thirty-six years.

Dr. W. P. Irwin has moved from Emporia to DeSoto. Dr. Irwin formerly practiced at Pleasanton.

Dr. B. H. Pope and Dr. A. D. Wehinger have purchased an interest in the Kingman Hospital.

Dr. J. R. Crawford has recently moved from Ottawa to Seneca.

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BOOKS

Physical Chemistry in Biology and Medicine. By J. F. McClendon, Ph.D., Professor of Physiologic Chemistry, University of Minnesota Medical School, and Grace Medes, Ph.D., Assistant Professor of Physiological Chemistry, University of Minnesota Medical School. Octavo of 425 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1925. Cloth, \$4.50 net.

The author states that this book is intended for research workers in biology and medicine. He discusses mass and volume, the colloid particle, intermolecular forces, electrolytic dissociation and chemical equilibria, hydrogen ions, radium energy, atomic structure and physiologic action, thermochemistry and the living body, colloids and organisms, ionic equilibria in blood, osmose, permeability, surface forces, etc.

Personal and Community Health by Clair Elsmere Turner, Associate Professor of Biology and Public Health in Massachusetts Institute of Technology, etc. Published by C. V. Mosby Co., St. Louis.

This book is written for a text book and

deals with the health of the individual and the community. It contains much information as will enable the reader to understand both the principles and the practice of hygiene. It is especially well written and the subjects are discussed with evident knowledge of the scientific principles involved.

Eye, Ear, Nose and Throat Manual for Nurses by Roy H. Parkinson, M. D., Visiting Oculist and Aurist to St. Joseph's Hospital, San Francisco. Published by C. V. Mosby Co., St. Louis. Price \$2.00.

This book was written particularly for class room work in the nurses training school. It seems to be carefully prepared and well adapted to the purpose for which it was written.

Ocular Therapeutics by Doctor Ernst Franke, Professor of Ophthalmology, University of Hamburg. Translated by Clarence Loeb, M. D. Published by C. V. Mosby Co., St. Louis. Price \$3.50.

This is a sort of compend on the treatment of diseases of the eye. It is very complete for that kind of a book. The details of treatment are carefully described. It should prove of considerable value to the general practitioner as well as the specialist.

A Text Book of General Bacteriology. By Edwin O. Jordan, Ph.D., Professor of Bacteriology in the University of Chicago and in Rush Medical College. Eighth Edition, thoroughly revised. Octavo of 752 pages, fully illustrated. Philadelphia and London: W. B. Saunders Company, 1924, Cloth \$5.00 net.

The eighth edition of Jordon's bacteriology contains considerable new material. The recent progress has been noted and he discusses the bacteriophage phenomena and the recent investigations concerning scarlet fever. Some of the older chapters have been extensively revised.

Old and New Viewpoints in Psychology, by Knight Dunlap, Professor of Experimental Psychology in the John Hopkins University. Published by C. V. Mosby Co., St. Louis. Price \$1.50.

This is a compilation of lectures and papers by the author, and contains a lecture "Mental Measurements," one on "Present Day Schools of Psychology" and one on "The Psychology of the Comic." It contains a paper on "Psychological Aspect of Spiritualism" and one on "The Reading of Character from External Signs."

The Normal Diet by W. D. Sansum, M. D., Director of the Potter Metabolic Clinic, Department of Metabolism, Santa Barbara Cottage Hospital. Published by C. V. Mosby Co., St. Louis. Price \$1.50.

This little book is a simple statement of the fundamental principles of diet and is prepared for the instruction of both physician and patient. There is discussed under

different chapter heads, the caloric, protein, bulk, mineral, water and vitamin requirements of the body. A chapter is also devoted to the subject of acidosis.

Preventive Medicine. By Mark F. Boyd, M. D., C. P. H., Member of Regular Field Staff, International Health Board of Rockefeller Foundation; formerly Professor of Bacteriology and Preventive Medicine in the Medical Department of the University of Texas. Second Edition, Revised. Octavo volume of 429 pages with 135 illustrations. Philadelphia and London: W. B. Saunders Company, 1925. Cloth, \$4.00 net.

The second edition of Dr. Boyd's work on preventive medicine shows some additional material and some revision. The work has already established itself among the students of the subject and those who are particularly engaged in public health work.

Allergy, Asthma, Hay Fever, Urticaria and allied manifestations of reactions by William W. Duke, M. D., Kansas City. Published by C. V. Mosby Co., St. Louis. Price \$5.50.

Most every practitioner in this part of the country has read some of Dr. Duke's papers or has heard his lectures on this subject, so there can be no question as to the hearty reception of his book. It is a subject that every one should be interested in and should know more about. From his experimental work and from his clinical experience he has gathered a great amount of valuable information on this subject. No one is more competent to present this subject to the profession.

Methods in Surgery by Glover H. Copher, M. D., Instructor in Surgery Washington University School of Medicine. Published by C. V. Mosby Co., St. Louis. Price \$3.00.

This is a description of the methods used in the surgical division of Barnes Hospital, St. Louis Children's Hospital and Washington University Dispensary. It also includes a series of outlines for case history taking, preoperative and post-operative care of patients, diet, etc.

American Illustrated Medical Dictionary (Dorland). A new and complete Dictionary of terms used in Medicine, Surgery, Dentistry, Pharmacy, Chemistry, Veterinary Science, Nursing, Biology and kindred branches; with the Pronunciation, Derivation, and Definition. Thirteenth Edition, revised and Enlarged. Edited by W. A. Newman Dorland, M.D. Large Octavo of 1344 pages, with 338 illustrations, 141 in colors. Containing over 2,500 new words. Philadelphia and London: W. B. Saunders Company, 1925. Flexible Binding, \$7.90 net; thumb index, \$7.50 net.

The thirteenth edition of Dorland's dictionary contains over 2,500 new words. The twelfth edition contained about 3,000 new words. The new edition has 1,344 pages and contains approximately 60,000 words

used in medicine and allied subjects, nearly half as many words as a good standard dictionary of the English language. It is a very convenient volume to handle—flexible binding, thin paper and thumb index. One must necessarily have a good dictionary convenient to his hand if he is to read intelligently many of the articles that appear in the current medical literature.

A Compend of Obstetrics by Clifford B. Lull, M. D., Instructor in Obstetrics, Jefferson Medical College. Published by P. Blakiston's Son & Co., Philadelphia. Price \$2.00.

This compend is made up almost entirely of questions and answers. The questions are of course those that are most pertinent and the answers are as fully explanatory as possible. The illustrations are clear and instructive.

A Compend of Diseases of the Skin by Jay Frank Schamberg, M. D., Professor of Dermatology and Syphilology, University of Pennsylvania. Seventh edition. Published by P. Blakiston's Son & Co., Philadelphia. Price \$2.00.

This is a concise text discussing and illustrating the commoner diseases of the skin and some of the unusual types. Treatment for each condition is suggested and a considerable number of formulae are given.

Empyema Thoracis, some fundamental considerations in the treatment of, by Evarts A. Graham, M. D., Professor of Surgery in Washington University School of Medicine. Published by C. V. Mosby Co., St. Louis. Price \$2.50.

This is an essay which won the Samuel D. Gross prize of the Philadelphia Academy of Surgery in 1920. The author has very carefully gone into the conditions of the thorax in empyema and has made an experimental study of the effects of open pneumothorax, in which he shows the fallacy of some of the older teachings. By the method of treatment he suggests the mortality has been considerably lowered.

Symptoms of Visceral Disease by Frank Marion Pottenger, M. D. Third Edition. Published by C. V. Mosby Co., St. Louis. Price \$6.50.

The third edition shows some changes that have been made so that the teaching will conform to the newer knowledge. The author says: "The physical state and the ionic content of the cell have been coupled with nerve response and there has been an attempt to show the part in reaction which is played by the chemical components and the physical state of the cell." His theories are at least well presented and if our actual knowledge is incomplete, a discussion of the subject does no harm and may lead to accurate information or at least definite conclusions.

A Manual of Gynecology. By John C. Hirst, M. D. Associate in Obstetrics, University of Pennsylvania. Second Edition, Revised. 12mo of 503 pages with 195 illustrations. Philadelphia and London: W. B. Saunders Company, 1925. Cloth \$3.50 net.

Some forty pages of new material have been added to this edition. Among the new things is the Rubin test for sterility, also the Huhner test. The chapter on endocrine therapy has been rewritten. There is a new chapter on backache. Many chapters have been completely revised or rewritten. Some new illustrations have been added. Attempt has been made to produce a book that would be useful to the student and to the busy practitioner.

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The Treatment of Syphilis.

A working monograph on the treatment of syphilis has been prepared for the medical profession by the Dermatological Research Laboratories which will be sent with the compliments of the publishers to any physician requesting a copy. This booklet discusses the following in separate chapters.

Introduction, Syphilis Today
 Arsphenamine vs. Neoarsphenamine
 Sulpharsphenamine
 Bismuth in Syphilis
 Mixed Treatment
 Methods of Treatment
 The Primary Stage
 The Secondary Stage
 The Tertiary Stage
 Neurosyphilis
 Intraspinal Injections
 Technic of Preparing:
 Arsphenamine
 Neoarsphenamine
 Sulpharsphenamine
 Bismuth
 Possible Reactions
 Sodium Thiosulphate
 References

Requests for this monograph should be addressed either to The Abbott Laboratories, Chicago, or the Dermatological Research Laboratories, Philadelphia.

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Protein Sensitization.

Medical research has of late concerned itself with the problem of simplifying the diagnosis and treatment of that peculiar but by no means uncommon condition known as protein sensitization. As a result of a large amount of experimental work, a cutaneous test, somewhat similar to the tuberculin test, has been devised for the determination of the protein or pro-

teins to which the patient is sensitive. This test is carried out by rubbing a small amount of the suspected protein into a shallow scarification of the skin. If the patient is sensitized toward that particular protein, a typical local reaction will appear at the site of application in the course of a few minutes; if not, no reaction follows.

These protein extracts are available in a variety of forms, but the most practical form seems to be that of an aseptic paste in collapsible tubes admitting of the release of the merest trace of the extract, which can then be applied to the scarified skin without loss of material or loss of time. Parke, Davis & Co. are in the market with a list of about one hundred and seventy-five protein extracts in paste form, both as individual proteins and in groups. A somewhat elaborate booklet discussing the significance of protein sensitization and containing a list of the extracts with directions for use is offered by the firm to all interested physicians.

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Psyiotherapeutic Convention.

Physicians are invited to attend the Fourth Annual Psychotherapeutic Convention to be held at the Drake Hotel, Chicago, October 12 to 16, 1925. Papers will be read and discussed by leading physicians of National and International reputation in this field. For particulars see page program in this issue. Demonstrations and exhibits of the latest apparatus and methods employed in physiotherapy will be given. Physicians who are in good standing with their State Medical Association and can give evidence of that fact are invited. Reservations may be made and programs obtained by addressing the Educational Department of H. G. Fisher & Company, 2335 Wabansia Ave., Chicago, Illinois.

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The New Pharmacopeia.

The United States Pharmacopeial Convention met in Washington in May, 1920, and appointed a committee to revise the Pharmacopeia of the United States. The new Pharmacopeia was placed on sale August 15; it becomes official January 1, 1926. The responsibility for the scope of the new Pharmacopeia was placed on the twenty-one members who held the degree of Doctor of Medicine. Consequently, the new book should more nearly represent rational medicine than some of the preceding revisions, in which pharmacists and pharmaceutical manufacturers largely controlled the situ-

ation. From the standpoint of the physician, the most noteworthy feature of this revision is the fact that but forty new drugs and preparations were added, while 192 have been deleted. The additions are drugs which give promise of therapeutic worth; thirty-one of them are already described in New and Nonofficial Remedies. The omission of such substances as arnica, calcium hypophosphite, cerium oxalate, coriander, grindelia, hops, lactucarium, three lithium salts, matricaria, prickly ash, musk, parsley, pepper, saw palmetto, stillingia, sumbul and taraxicum is a distinct aid to scientific medicine. The retention of sarsaparilla is to be regretted. An effort has been made to simplify the Latin titles; examples are: the substitution of Cinchophenum for Acidum Phenylcinchoninum; Methenamina for Hexamethylenamina; Liquor Pituitarii for Liquor Hypophysis. Whereas the present Pharmacopeia requires that two drugs and their preparations be standardized biologically, the new book requires that eight must be so standardized. The unit of measurement, the milliliter (abbreviation "Mil"), which is used in the present Pharmacopeia, has happily been abandoned again and the familiar cubic centimeter (abbreviated "cc.") restored. (*Jr. A.M.A.*, Aug. 20, '25).

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Announcement of New Reports

The Children's Bureau of the United States Department of Labor has just issued a report on "Laws Relating to Sex Offenses Against Children." This publication (Number 145) includes abstracts and texts of State age-of-consent laws and laws relating to abduction, seduction, prostitution, and to other sex offenses, so far as they concern minors. The abstract of the laws was made by Reuben Oppenheimer, and their compilation was the work of Lulu L. Eckman. The text of Federal laws which have some bearing upon the subject, such as laws relating to the white-slave traffic, or to the transportation of aliens for immoral purposes, is also included. Single copies of this report will be issued free upon request.

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American Board of Otolaryngology.

The next examination given by the American Board of Otolaryngology will be held at the Cook County Hospital, Chicago, on October 19th, 1925. Application should be made to the Secretary, Dr. H. W. Loeb, 1402 South Grand Boulevard, St. Louis, Missouri.

Kentucky is Appointing Co-Operative Clinicians.

The Kentucky State Board of Health is appointing co-operative clinicians thruout the state for venereal disease work. Members of the state and county medical societies who are listed by the County Health Officer as particularly interested in venereal diseases, are eligible for these appointments.

The arrangement provides for the treatment of indigent patients and for the enlightenment of the community in the venereal disease problem. The patient helps to defray the cost of drugs and of other materials by contributing according to his ability, but not to exceed two dollars. If the patient is able to pay more than two dollars, he automatically becomes a private patient. The Kentucky State Board of Health pays half of the cost of the drugs used in the treatment of indigent patients, the clinician paying the other half out of the contributions made by the patients. The State Board of Health makes available to clinicians at cost, drugs and materials to be used exclusively in the treatment of indigent patients.

Each clinician is supplied with "Venereal Disease Information" and "Social Pathology," two periodicals issued by the United States Public Health Service for use in its cooperative work with state departments of health. The Hot Springs Venereal Disease Clinic is also open to clinicians who may desire to become more fully acquainted with the various phases of venereal disease control. Strip film views of syphilis and of skin diseases simulating syphilis will also be available to the State Board of Health for use in interesting physicians and medical students in fortifying themselves in the detection and treatment of venereal diseases and in actively co-operating with the Health Authorities. These films have been specially prepared by the United States Public Health Service from original photographs and negatives made available through the generosity and co-operative spirit of a number of syphilologists and dermatologists who agree with the Health Authorities that effective venereal disease control depends upon the active co-operation of the physicians and Health Departments. A representative of the United States Public Health Service is co-operating with the Kentucky State Board of Health in the furtherance of this venereal disease activity through public education

regarding the nature of these diseases and the value of therapeutic and prophylactic measures.

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Hyperemesis Gravidarum: Treatment by Intravenous Injections of Glucose and Carbohydrate Feedings.

Intravenous injection of glucose for hyperemesis gravidarum, first recommended in two previous communications by PAUL TITUS, Pittsburgh, and his co-workers (*Journal A.M.A.*, Aug. 15, 1925), has now come to be an accepted method of treatment. Because of a diversity of opinions on such matter as the dose of the sugar, the preparations of glucose to use, the concentration of the solutions, and the frequency of the injections, detailed directions are outlined in this paper. The principal points to be observed are that: (1) the therapeutic dose of glucose for an adult of average size is from 50 to 75 gm., and smaller doses do not give the desired effect; (2) any preparation of glucose for intravenous administration must be chemically pure because reactions in the patient are usually traceable to impure or carelessly prepared solutions; (3) hypertonic solutions (preferably 25 per cent.) act more promptly and favorably than weak solutions, and (4) single injections are safer than a continuous flow, but must be repeated from one to three times daily according to the condition and response of the patient. Favorable results are now reported in a total series of 328 cases of hyperemesis gravidarum treated by high carbohydrate feedings or intravenous injections of glucose. Therapeutic abortion was performed four times, and three of these patients died. Two of these cases were clinically to be classed as acute yellow atrophy of the liver. The basis for the treatment of hyperemesis gravidarum by glucose and other carbohydrates whether given by vein, by mouth, or by bowel is to be found in the physiologic assumption that there is a carbohydrate deficiency in the maternal organism. This deficiency occurs as the result of an unusual demand for carbohydrates made by the growing fetus, and a diminished carbohydrate intake in the patient's diet, thus being a combination of an indirect and a direct starvation. Pregnancy toxemia and starvation are not identical, for additional factors undoubtedly are involved. Every pregnant woman is a potential subject for toxemia, and if by a starvation of carbohydrates the liver is depleted of its reserve glycogen, its

detoxicating action is thereby impaired, and a more profound effect from toxins from whatever source is thus made possible. Carbohydrate deficiency in pregnancy toxemia probably is the cause of part of the central necrosis of the liver lobules seen in fatal cases.

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Medical Treatment of Pituitary Neoplasm

It is the belief of I. H. PARDEE, New York, (*Journal, A.M.A.*, Aug. 15, 1925), that all pituitary neoplasms, whether large or merely hyperplasias, should be given the benefit of medical treatment, provided vision is not in immediate danger of becoming lost. First, glandular extracts should be used, especially pituitary and pituitary extract, and, as a later resort, roentgen-ray treatment. Many patients under this procedure will be saved from a major operation, the outcome of which is often problematic. The types of cases most likely to respond to the foregoing method are those of pituitary hyperplasia and adenoma, which are not of the destructive type and do not seem to be growing rapidly. These often show symptoms of glandular disturbances elsewhere and will often develop erosion and enlargement of the sella, chiasmal pressure and, perhaps, signs of pyramidal tract pressure. Hypophysial enlargements may be considered from two points of view, (1) a destructive rapidly growing neoplasm, and (2) benign adenomas, strumas or a hyperplastic state. Without question, the former type eventually needs operation; most of the latter are amenable to medical treatment, including glandular and radiotherapy, in the same manner that the thyroid is subject to similar medical therapy, surgical treatment being used when necessary. The glandular therapy recommended is desiccated pituitary body by mouth and pituitary extract hypodermically. Combined with this, any necessary supportive or substitutive therapy should be given to other endocrine organs. Many patients recovered under the foregoing treatment.

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Sugar Content of Blood in Runners Following a Marathon Race

Marathon runners who competed in the race of 1924 and showed blood sugar levels below normal were placed on a moderately high carbohydrate diet during this year's training season. In addition, they were advised to take a large amount of carbohydrate twenty-four hours before the race.

Another group of runners who developed symptoms of weakness and hunger in the 1924 race were studied during this year's training season with the purpose of determining if possible, at what stage in a 25 mile run the symptoms of hunger and weakness were likely to develop. It was found that this was apt to occur between the fourteenth and eighteenth miles. Therefore, in addition to being advised to eat moderately large amounts of carbohydrate before the race, these athletes were supplied with glucose candies to be eaten from time to time while running. In addition, they were supplied with tea containing a large amount of sugar at stations along the course. The blood studies made by BURGESS GORDON, L. A. KOHN, S. A. LEVINE, MARCEL MATTON W. DE SCRIVER and W. B. WHITING, Boston (*Journal A.M.A.*, Aug. 15, 1925), showed normal sugar levels in all runners, in contrast to the low figures obtained last year. There was also a striking improvement in their general physical condition. In a number of instances the running time was faster than in the year previous and the participants finished in better position. It seems, therefore, that the picture of exhaustion, weakness, shock and other symptoms of hypoglycemia following prolonged effort may be prevented by the adequate and timely ingestion of carbohydrate.

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Disturbance of Vision Due to Digitalis

Disturbances of vision resulting from the internal use of digitalis have been known at least from the time of Withering. Such disturbances have only rarely been described in the English literature, but have been carefully reported in German and French. Their occurrence at present in this country is very infrequently recognized. Because of the importance of noting visual disturbances in all grades of digitalis intoxication, H. B. SPRAGUE, P. D. WHITE and J. F. KELLOGG, Boston (*Journal, A.M.A.*, Sept. 5, 1925), report a series of seven cases. These cases present symptom of a toxic amblyopia with dimness of vision, flickering and flashing scotomas and marked disturbance of color vision. All these seven patients received an excessive amount of digitalis. In all but one case, this was due to incorrect dosage by the physician in charge, or misunderstanding on the part of the patient. Five patients complained of a defect of color sensation; four had yellow vision, one red-

yellow, and two green. All complained of decrease of visual acuity, and three said that they seemed to be looking through mist. Two had difficulty in focusing the eyes or reading, two had definite scotomas, and three had flickering before the eyes. In one instance the patient said that surrounding objects in sunlight appeared covered with snow. In two cases the visual disorders preceded the gastro-intestinal and cardiac effects; in two others, disturbances of the eye were associated with nausea and vomiting as the first toxic symptoms. Two patients with marked visual effects had no change in cardiac rate or rhythm, and one of these had striking xanthopsia without either nausea or cardiac effects. In three cases, extreme muscular weakness, described in digitalis intoxication, was a prominent feature. This, with the gastro-intestinal complaints, was considered by the patients of more serious importance than the eye symptoms; and it was therefore necessary to question them carefully to secure an adequate description of their visual disorders.

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The Relationship of Tuberculosis to Fistula in Ano

It is the belief of W. A. FANSLER, Minneapolis (*Journal A.M.A.*, Aug. 29, 1925), that we are not justified in making the diagnosis of tuberculous fistula except by definite microscope picture or in cases in which the lesion has the typical appearance described elsewhere in this paper. Considering all cases of fistula in ano, it is doubtful whether more than 2 or 3 per cent. are tuberculous in character. Tuberculosis is very rarely primary in fistula in ano. If it occurs at all it is not more than a small fraction of 1 per cent. Probably 15 per cent of fistulas occurring in tuberculosis patients are tuberculous; 0.33 per cent. of tuberculous patients also have tuberculous fistulas. (These figures are based on a too insignificant number of cases to justify a positive statement). In view of the ease with which the tubercle bacillus affects the mucous membrane of the bowel, it would seem possible that in some cases—at least in tuberculous persons, in whom the fistulas appear to be a simple inflammatory process, that the original lesion in the bowel wall is due to the tubercle bacillus. However, this is purely a matter of opinion

and has not been proved. In any event, it has but little bearing on the prognosis or treatment of the fistula. It is probable that tuberculosis as such has a tendency toward the formation of rectal fistula, but that this tendency is not as great as is generally supposed. The general condition of the patient is also a decided factor. It would seem that the formation of rectal fistulas in persons who are underweight is undoubtedly a definite warning of the presence of pulmonary tuberculosis or of a tendency toward its development. These persons are entitled to a most scrutinizing general examination, which, even if negative, should be repeated periodically.

—R—

The Nonsurgical Management of Peptic Ulcer by the "Physiologic Rest" Method.

The material analyzed by FRANK SMITHIES, Chicago (*Journal A.M.A.*, Aug. 29, 1925), comprises 470 patients affected with ulcers and who were treated nonsurgically according to Smithies' plan published in 1916. In the hospital cases, the average duration of incarceration was twenty-six days, a saving of nearly half the time and money required by the regimen advocated by Ewald, Schultz, Sippy and others. Actual bed confinement averaged less than nine days. In 40 per cent. of patients, all pain had disappeared within twenty-four hours of beginning treatment; an added 33 per cent. experienced pain relief within forty-eight hours; 8 per cent. required seventy-two hours; 15 per cent. almost ninety-six hours; in approximately 4 per cent; it was necessary to relieve pain by opiates. The last group consisted of ulcers whose extension had advanced to the serous layer of the stomach, or the ulcers were of the deep, fissured type, directly located at the pyloric or cardiac orifice. A total of 81 per cent. were subjectively comfortable in three days or less. Of 41 per cent. of ulcers exhibiting positive occult blood tests when treatment was begun, at the end of five days 92 per cent. of the patients' stools were blood-free. Seven cases went on to actual perforation (1.5 per cent.). In sixty-six patients who came to laparotomy for numerous intra-abdominal lesions, following institution of ulcer management, completely healed scars were demonstrated in fifty-four, approxi-

mately 82 per cent. In the remaining twelve patients, malignancy, perforation, multiple ulceration or actual, benign ulcer activity were present. Dyspepsia-free intervals averaging eleven months were recorded in 234 cases before treatment; it lengthened to thirty-seven months as an average after treatment. Thirty-two patients before treatment had had quiescent periods averaging nineteen months; after treatment those on whom we have reports had increased to an average of forty-four months. Recurrences were noted in 14 per cent. (sixty-six cases). Of the whole group, 470 patients in their present status, there is justification for claiming cessation of the ulcer process in 361, or 77 per cent.

—————R—————

What Do Physicians Prescribe?

The impression seems to be prevalent, although without any definite evidence, that physicians are again tending to the prescribing of ready-made formulas, and that the art of pharmacy is becoming less and less a necessity as an accessory to modern medical practice. In this connection, it is interesting to observe the results of a survey recently made under the Commonwealth Fund. The investigators examined 1,000 prescriptions, selecting at random a hundred prescriptions from each of ten states. Of these prescriptions 51.9 per cent. contained only official ingredients, 29 per cent. contained both official and non-official, and 19.1 per cent. contained only nonofficial ingredients. In a second study of these prescriptions, it was found that the number of ingredients included in the 1,000 prescriptions totaled 2,680; of these, 81.4 per cent. were official and 18.6 per cent. nonofficial. As the study progressed, the ingredients of 17,577 prescriptions were tabulated. These were found to contain 40,454 items, of which 77.8 per cent. were in the United States Pharmacopeia, 5.4 per cent. in the National Formulary, 6.8 non-official but not proprietary, and 10 per cent. proprietary. A study of 10,000 prescriptions showed that from 70 to 85 per cent. called for the skill of the pharmacist in their compounding. This investigation revealed clearly that the filling of prescriptions is not, as has been believed, largely a matter of transferring a proprietary or secret formula preparation from one container to another as was largely the case twenty years ago. The results are encouraging in their indication that physicians are holding in large measure to the ideals urged on

them when students by their instructors and emphasized by the Council on Pharmacy and Chemistry. (A. A. M. A., Sept. 5, 1925).

—————R—————

The Digestion of Connective Tissue

In his experimental work Zachary Sagal, New York (*Journal A.M.A.*, July 11, 1925), has made use of a good quality of plain catgut, cut in lengths of 7 inches (one-fourth strand) and the ends tied securely to two beads, which were also joined by a piece of silk. The entire thing was enclosed in a capsule. Some of the capsules were coated with several layers of keratin and phenyl salicylate. It took at least two coats of each to make the capsules safely enteric; i. e., to protect them from any possibility of gastric digestion. The capsules were very carefully inspected before they were used for the experiments, as a pin-point break in the continuity of the coating was sufficient to allow the solution of the capsule and subsequent digestion of the catgut. The coated and uncoated capsules were fed to normal persons and to patients with gastro-intestinal disturbances, and the beads with whatever was attached to them recovered from the stools. Three persons with presumably normal digestion were fed both uncoated and coated capsules. Two patients with constipation were given the coated capsules. Three patients with gastric hypermotility were similarly studied. To four patients with anachlorhydria, uncoated capsules were administered. It was found that the thickest catgut, even chronicized, was just as readily digested as the thinnest. When the disintegration of the gelatin capsule in the stomach and for some distance in the small intestine was prevented by a proper enteric coating, the catgut was uniformly recovered from the stool unchanged. A thin coating with phenyl salicylate or keratin is not sufficient to prevent the digestion of the catgut, either because the coating is not perfect and some gastric juice enters the capsule while it is still in the stomach, or because the keratin is dissolved off a short distance from the stomach, where pepsin and hydrochloric acid digestion is still possible. A moderate degree of gastric hypermotility did not interfere with the digestion of the catgut when administered in an uncoated capsule. In all cases of anachlorhydria the catgut was recovered from the stools when the precautions described above were carefully observed. The catgut was only partly

recovered in three instances, in each case when the silk between the beads was longer than the catgut and the beads were therefore held together by the catgut. On two occasions it was No. 5 catgut that gave way. These investigations prove that no digestion of connective tissue as represented by catgut takes place without gastric juice.

—R—

Care of Mothers Urged

Medical and social leaders of France are stressing the demand that expectant mothers should have adequate medical care, and that, therefore, it is essential to make compulsory the early notification of pregnancy, so that venereal affliction, when present, may be detected and the coincident danger to the unborn child prevented. It is not sufficient to protect the child only from the moment of its birth, as according to Prof. A. Couvelaire, of the Baudelocque Hospital of Paris, 41 per cent of the deaths of infants during pregnancy are due to syphilis. There is considerable evidence that the number of such deaths may be greatly reduced by timely examination and care of expectant mothers. Similarly the Conference of Venereal Disease Control Officers of the State Health Departments and the United States Public Health Service, held at Hot Springs, Arkansas, in December of last year, urged that special attention to all details should be given in the "treatment of women because of the possibility of the transmission of the disease to the child."

—R—

Sir Aukland Geddes Assumes Leadership of Social Hygiene Council

Sir Aukland Geddes, former British ambassador to the United States, has accepted the presidency of the British Social Hygiene Council. As Sir Aukland Geddes is already president of the Society for the Prevention of Venereal Disease, it is anticipated that, if the present efforts are continued and extended, venereal diseases in England will be reduced to a minimum.

It is significant that the main point of difference between these two organizations was adjusted by the report of Lord Trevellyn's Committee relative to the use of personal prophylaxis in the prevention of venereal diseases. In this connection the London correspondent of the Medical Journal of South Africa writes: "From a medical point of view prevention is better than cure, and the majority of medical men would probably approve of personal disin-

fection as a sensible precaution. Not only does such a course lessen the risks to the person who exposes himself to infection, but it is also a safeguard against the direct inoculation of others, more especially spouses and children."

—R—

The crescroscope is an instrument that records the minutest vibrations of plants under the various forms of stimulation. It is the invention or discovery of Sir Jagadis Chandra Boss, Indian scientist. He dopes the plants with drugs in order to make observations. Gets the plants drunk. A plant, like a man when he gets drunk, shows up its true character—tells all it knows.

—R—

Urologic Problems of the General Practitioner, Surgeon and Internist

Robert V. Day, Los Angeles (*Journal A. M. A. Sept. 5, 1925*), discusses kidney function, hematuria and pyuria, renal tuberculosis, renal maladies of the clinically obscure abdominal type, catheter cystitis and latent prostatism in relation to general surgery. Speaking of the latter, he says: A surgeon about to perform a serious operation on any patient should know that his patient is physically sound or, if not, know the nature and extent of all abnormalities present. In any male patient of the prostatic age (50 years old or more) particularly if the operation be for hernia or hemorrhoids acquired in the last few years, the catheter should be employed to ascertain whether or not there is residual urine. If the residual urine is considerable, kidney functional tests and preliminary drainage by andwelling catheter should precede any elective operation for the same length of time one would take to prepare the same patient for prostatectomy. In the event of an emergency operation, an indwelling catheter or regular intermittent catheterization should be employed. Prostatism, mis-called prostatic hypertrophy, is an adenomatous or sclerotic condition of the prostate, causing obstruction in some degree to the outflow of urine through the urethra. Hypertrophy of the lateral lobes or definite carcinomat may readily be felt by a finger in the rectum; but this procedure cannot be expected to disclose any evidence of middle lobe hypertrophy alone or of contraction or bar. The urine may be quite normal. A patient with clear urine is just as likely—sometimes more so—to have a severe infection with a stormy convalescence following a surgical operation (per-

haps a fatality), as a patient with infected urine. In the presence of residual urine, cystoscopy is usually necessary to discover the precise nature of the obstruction. One should always be on the lookout for tabes or other disease of the central nervous system before diagnosing protatism. However, they may coexist.

—R—

Experimental High Intestinal Obstruction Relief by Irrigation and Control of Alkalosis

The operative and irrigation procedures reported by M. M. Portis and Bernard Portis, Chicago (*Journal A. M. A.*, Aug. 22, 1925), were performed on dogs. One tube was passed up to the closed end of the proximal duodenal loop and a second tube was kept in the same loop near the gastro-enterostomy opening. Physiologic sodium chlorid solution or Ringed's solution was introduced through the longer tube at a slow constant rate from an elevated bottle. The fluid was withdrawn by gentle suction from a water pump. A third tube was left in the stomach itself in order to wash out excessive gastric secretion, and also for the early introduction of fluids and later food into the stomach. This type of irrigation was tried in three series of dogs. First,



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with an ordinary gastro-enterostomy; second, with a gastro-entostomy and a pyloric occlusion, and third and most important, in a series of dogs prepared according to the second method but with a rubber band placed on the proximal loop near the gastro-enterostomy opening. In this manner a positive obstruction was produced with the duodenum forming a closed loop. This irrigation was carried on continuously for twenty-four hours and also for a short time after the occlusion had been removed. At the end of twenty-four hours, a linear incision was made under local anesthesia to the left of the midline. The rubber band occluding the jejunum was removed and the abdomen closed. The animal received further duodenal irrigation for a period of four hours and then was permitted to rest. The authors assert that such irrigation of the obstructed duodenojejunal loop has a favorable action, and when accompanied by control of alkalosis relieves the symptoms and prevents death.

R

The Control of Rickets

That animals can be protected against rickets by the use of cod liver oil and ultraviolet light is an established fact. It has also been clearly shown that cod liver oil and sunlight exert a great influence in the cure of rickets. Whether these measures are sufficient to prevent rickets in infants in a community has been made a problem of investigation in New Haven. Martha M. Eliot, New Haven, Conn. (*Journal A. M. A.*, Aug. 29, 1925), describes the plan of the study and offers a preliminary discussion of the results. The demonstration was started in October, 1923, for a three year period by the United States Children's Bureau in conjunction with the pediatric department of the Yale School of Medicine and with active cooperation of the local health organizations. A district of the city was selected having a population of approximately 13,500, one-third of which were negroes, and two-thirds a mixed population composed of Italians, Irish, Polish and Americans. The office of the demonstration is known in New Haven as the "Children's Bureau." The staff consists of three physicians, three public health nurses, two social investigators, a roentgen-ray technician and a secretary. The main problem of the investigation was to show whether rickets could be prevented in

a community by intensive use of cod liver oil and sunlight. The infants born within the selected district during the first two years of the study are examined and started on cod liver oil and sunbaths, if possible, before the end of the first month of life. They are brought to the Children's Bureau once a month for physical and roentgen-ray examinations in order that rickets may be discovered as early as possible and intensive treatment instituted if necessary. The nurses visit the homes frequently to see whether the instructions are being carried out. These investigations have shown that a slight degree of early rickets is well nigh universal in our climate and in our state of society. The very intimate association of rickets with growth, its early appearance regardless of season, and its universality raise the question whether this slight degree of rickets must not be considered normal. That rickets is intimately associated with growth is well known, and that it should appear at the time when most active growth is taking place, namely, the first four months of life, is not extraordinary. The rate of growth of the infant influences the early development of the disease. Large rapidly growing breast-fed infants and very fat infants uniformly show definite evidence of rickets. It is an uncommon thing to find a healthy, vigorous breast-fed infant who does not show rickets by roentgen-ray examination. Premature babies, who grow exceedingly rapidly, are notoriously rachitic. Malnourished infants frequently show small, slender bones with little or no rachitic change. If any two groups of infants show the need of early antirachitic treatment more than others, they are the large, rapidly growing breast-fed infants and premature babies.

R

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A Preliminary Report of Personal Experiences With Spinal Anesthesia

L. F. BARNEY, M. D., Kansas City.

Read at the Annual Meeting of the Kansas Medical Society at Topeka, May 6-7, 1925.

During the last generation surgery has advanced by leaps and bounds. The two great factors in this rapid advancement have been asepsis and anesthetics. During the civil war the operations that were made, were done by holding the patient by brute force, and it was thought something was wrong if they were not followed by laudable pus. Perhaps there are some here within the sound of my voice who have either done extensive operations, or at least seen them done, without using any anesthetic, not even a narcotic, depending wholly upon the effects of a large draught of whiskey. Only two years ago the writer visited hospitals in a foreign city of more than a million people where he was told that children's tonsils and even cleft palates were operated upon without any anesthetic. I am quite sure you will not question the reliability of the source of my information when I tell you that I was told this by an American professional nurse there. The information becomes doubly reliable when you learn that she was a Kansas girl, and it becomes absolutely indoubitable when you know her home was in, and that she had gotten her earlier training from the doctors of and in the hospitals of Topeka, Miss Louise Kienenger.

With all of our rapid progress in America, we are still not satisfied with the stage we have reached. Occasionally one learns of an infection following a clean operation or the post operative results are not what had been hoped for. Likewise, at times, there is an anesthetic death, or the relaxation may not be perfect, or there may be post operative vomiting and pain, an anesthetic pneumonia, etc., etc. Hence we are constantly changing our technique. The requirements for an ideal anesthetic are:

1. There shall be no anesthetic mortality.
2. There shall be no bad post anesthetic sequelae.

3. There shall be no pain and discomfort.
4. In abdominal operations complete relaxation of muscles.

At present we are not always able to fulfill all of the above requirements, therefore the changes in the technique in the use of the old and the adoption of new methods.

Having not been entirely satisfied with the results being obtained with inhalation anesthesia and the limitations of local anesthesia, and after partaking of a four days symposium on anesthetics with a group of surgeons out in mid-ocean where heart to heart talks could be had, and learning first hand that many of them were using spinal anesthesia as the anesthetic of choice in certain fields of operations, and then visiting some countries and seeing it used, where it was almost the universal anesthetic for all operations below the diaphragm, the writer decided to try it out and is now making a preliminary report on 58 operations made with that method in the past two years. He hopes to have the privilege later of making a more comprehensive report to this society on a larger series of cases.

Since May, 1923, he has done the following cases, each one representing a separate case, and where more than one operation has been done at the same time it has only been recorded under the heading of the main operation; for example the appendix was removed in the gallbladder or fibroid uterus cases. In one case a trachelorrhaphy, an appendectomy, and Baldy-Webster operation was done, but it is given only as a retroversion of the uterus. There were many double hernia listed as one operation.

The operations were:

Incomplete abortion	1
Gallbladders	3
Cancer of uterus	1
Appendicitis	3
Fibroid uterus	8
Pus tubes	5
Retroversion uterus	2
Ventral hernia	3
Inguinal hernia	13

Varicocele	1
Prostatectomy	6
Hemorrhoids	3
Amputation femur	2
Amputation foot	1
Amputation toe	1
Osteomyelitis leg	1
Osteomyelitis foot	1
Fibroma leg	1

In this report he expects to tell frankly of his experiences not only to tell about the good results but also tell of the failures, the bad results, and the unsatisfactory experiences

While this series of cases is extremely small, especially when compared with Babcock's 17000, Yount's 7000, Steele's 5000 and many other large series that have been reported, nevertheless it has yielded some very interesting experiences and caused the operator to develop some very definite conclusions, which conclusions he has changed many times, especially with the first 10 cases, and he still reserves the right to change his conclusions as he gets more experience. This paper, you will recall is a preliminary report, and is given for the purpose of enumerating and discussing those experiences and I hope those present will discuss them today frankly as has the essayist. As the number of cases has increased and as experience has been gained, some of the difficulties have been eliminated.

ANALYSIS OF THE RESULTS IN THE 58 CASES

Post anesthetic mortality none.

Bad post anesthetic sequelae none. There were two cases who had mild post operative headaches, one lasting five days, and one, the man who received the injection extradural and had no anesthesia, lasting eight days. Neither was severe except when they sat up and both easily relieved by aspirin when they lay prone. Both completely recovered. There were no post anesthetic cord injuries or other bad results.

Entirely satisfactory results were obtained in 33 or 57% of the cases. Those classified as entirely satisfactory are those in which no criticism could be made, they fulfilled the four requirements stated above for an ideal anesthetic.

Ether was given in 15 or 26% of the cases to finish the operation. There were five indications for giving ether, viz:

1—No anesthesia in three cases.

A. Taber patient very nervous, nauseated before starting the spinal puncture,

needle slipped out of canal and injection made extradural.

B. Dr. F.'s case, anesthetic intradural, no anesthesia, no drop of blood pressure, no numbness of legs or other effects perceptible. Dr. F. had previously attempted to operate upon him under local novocain, but obtained no anesthesia, not even after injecting the sciatic nerve.

C. Worline, novocain intradural but no anesthesia, no fall of blood pressure or other effects perceptible except slight numbness of legs.

2—Anesthetic too light—5 cases.

A. Eshback, acute appendicitis with acute bronchitis, neurotic anesthetic extended only to the knees, very little ether gave complete relaxation.

B. Smith, pus tubes, injected in 4th lumbar space, anesthesia extended only to the middle of thighs, required but very little ether.

C. Kelly, gallbladder case, anesthesia complete below umbilicus, only partial above. Very little ether gave complete relaxation.

D. Smelton, patient very nervous, came to operating room crying and complaining of being hungry, same results as above case.

E. Malloy, acute appendicitis, incomplete anesthesia, relaxation complete with very little ether.

3—Duration anesthetic too short—4 cases.

All were difficult hysterectomies consuming a great deal of time. Three were large fibroids with adhesions and one a complete hysterectomy for cancer of the uterus. The anesthesia lasted 85 minutes in one, 60 in another, 55 in another, and only 25 minutes in the fourth. All required but very little ether to complete the operation, one taking only 1½ ounces in 65 minutes.

4—Patient too excited, one case.

Dr. A.'s case, moron, prisoner, improperly prepared and had been frightened about the anesthetic by the other prisoners. Required very little ether.

5—Failure to make spinal puncture, 2 cases.

One a negro, the other a Hebrew; both nervous and would not relax their spines. Operator became too impatient and gave ether. Think both could have been made.

Besides those requiring ether there were

several that were not entirely satisfactory—the causes being shock, vomiting and nervousness, and broken needle.

Shock—7 cases—12 per cent.

A. Hudson, our first case, injection made with a solution having a specific gravity lighter than that of the spinal fluid, patient left sitting up too long, complete anesthesia extending above the nipples, blood pressure dropped from 120/65 to 45/0, pulse dropped from 85 to 50 and imperceptible at the wrist, respiration became slow, irregular and difficult, patient clammy and nauseated, operator became frightened and postponed the operation two days and then did the prostatectomy under ether.

B. Foerchler, our fourth case, prostatectomy, patient 87 years old, blood pressure dropped from 135/80 to 45/0, pulse slow and weak, patient clammy, recovered entirely from anesthesia but died nine days later of uremia.

C. Reynolds, cancer of uterus, blood pressure dropped to 50/0, vomited and perished freely.

D. Ferrell, ventral hernia, blood pressure dropped to 45/0, slight nausea, no vomiting, some shortness of breath lasting a few minutes and then entirely satisfactory.

E. Beaman, double inguinal hernia, blood pressure became imperceptible with rapid irregular pulse, sweating and rapid breathing.

F. Mindendorf, prostatectomy, blood pressure became imperceptible at wrist, no nausea, sweating or shortness of breath.

G. Allbright, gallbladder, age 76, blood pressure dropped from 220/ to 40/0—otherwise satisfactory.

Patients psychic—7 cases.

These patients all were neurotic and frightened. Four were among those requiring ether because the anesthetic was too light, all seven became nauseated but all did not vomit.

Broken spinal puncture needle—1 case.

In one patient a new steel spinal puncture needle was used and broke while making the puncture, another needle was used and satisfactory results obtained.

TECHNIQUE

Material required:

1. Hypodermic syringe (preferably Luer type) with long fine needle, with solution of novocain.

2. Ten cc. glass syringe. (Luer type).

3. Large hypodermic needle, 16 or 18 gauge.

4. Spinal puncture needle.

5. Ampoule of anesthetic solution.

6. Glass graduate.

7. Solution adrenalin with normal salt solution for intravenous injection.

The hypodermic syringe with fine needle is used to infiltrate the back with novocain, which when done properly makes the spinal puncture practically painless.

The ten cc. glass syringe must fit the spinal puncture needle and is used for injecting the anesthetic into the subarachnoid space. It should work very freely so that the spinal fluid will run into the syringe without traction on the piston, or otherwise the needle is likely to become displaced and the injection be made extradural rather than intradural.

The large hypodermic needle is to remove the solution from the ampoule.

The selection of a proper spinal puncture needle is important. A steel needle is too brittle and is likely to break, as happened for me in one case. A platinum needle is too soft and may bend or the point become turned or dull, making introduction difficult and painful. Furthermore they are expensive. Nickeloid needles are more satisfactory and are not expensive. The needles should be of small calibre, 19 or 20 gauge, because a larger needle (1) is more painful to introduce, (2) allows the fluid to flow more rapidly and is likely to be followed by headaches; and (3) the anesthetic solution may be injected too rapidly and with too much force. The stilette should fit perfectly and should not stick upon its removal, on account of the danger of removing the point from the subarachnoid space. The point of the needle should not be blunt or dull, and yet the bevel should not be too long for the obvious reason that the longer the bevel the deeper the needle must penetrate the arachnoid to prevent the fluid being injected outside the sheath.

For the above reasons it is wise to have a supply of puncture needles of uniform length, calibre and quality. Also the sense of resistance, which one depends upon greatly, becomes more uniform, if one uses uniform needles.

The glass graduate is used for measuring the amount of spinal fluid withdrawn.

Ampoule of anesthetic solution. Until recently I used a French preparation, put up in three cc. of physiologic solution to make it isotonic with the spinal fluid. Of late I have been using sterilized crystals (Metz) put up in three cc. ampoules and use the spinal fluid withdrawn as a solvent.

This latter has given more satisfactory and more uniform results. It contains no adrenalin, which authorities say, and my experience seems to prove, has no effect on the blood pressure when injected into the spinal canal.

A solution of adrenalin with normal salt solution for intravenous injection should always be in readiness in case of extreme shock. Formerly we gave a hypodermic of caffein with sodium benzoate at the time of making the spinal injection to prevent the fall of blood pressure but experience proved it valueless. Adrenalin subcutaneously also proved useless, but authorities, especially Babcock, say that adrenalin intravenously with normal salt solution has proven to be of real value.

Preparation of instruments:

The ampoules of novocain are placed in alcohol to sterilize the outside and then wiped dry with sterile gauze before breaking the cap.

The needles and syringes must be kept scrupulously clean and should be used for no other purpose. They should be sterilized separately from all other instruments in distilled water in a vessel kept thoroughly clean and used for no other purpose, so that there will be no danger of injecting any foreign material into the canal which may be very dangerous, and so they will not come in contact with any alkaline solution as sodium bicarbonate or tap water which renders the novocain more inefficient. The syringe should be brought to the operator in the boiling water and should be touched by no one but the operator and he uses it hot which aids in the solution of the novocain and also prevents injecting cold solution in the spinal canal which might produce more shock.

Preparation of patient:

The patient should be prepared in the usual way for operation except instead of withholding fluids or food several hours before the operation, I give them a cup of tea or coffee with a slice of toast two and one half hours before the operation; not later because occasionally one vomits when brought into the operating room or when the spinal injection is made or at the beginning of the operation which is probably due to the psychic effect.

In the beginning I would discuss the effects of the anesthesia the day before the operation, telling them how they would feel when it began to take effect, but of late I have only told them that I was going to do the operation in a way that would

relieve them from the dread of having to take ether. If they inquired further, would tell them I would give them a hypodermic in the back which would render them painless and motionless from the chest down, for from fifty minutes to two hours, and then the sensations would all return to normal, to be followed by no bad effects and there would be less or no post operative vomiting and pain. Fortunately of late I have always had several patients in the hospital all of the time who were delighted with the results of their spinal anesthesia and who were great boosters and aided a great deal. Also, since I have become more enthusiastic and more confident in the results, it is much easier to get the cooperation of the patient. I believe that the surgeon who, either from lack of confidence in himself or for some other reason, can not inspire confidence in his patient should not operate on that patient. Furthermore, I also believe that the nurse who cannot endorse the methods used by the doctor in charge of a case and who presents her opinions which are not in sympathy with those of the attending physician, should not be allowed to have anything to do with his case. If she cannot conscientiously support and boost his methods, she should either keep quiet or get off the case. Since I have adopted the latter method there has been less nausea and other untoward symptoms.

One hour before the operation the patient receives a hypodermic of morphine gr. 1/6 and scopolamin gr. 1/150 with or without atropine gr. 1/150. This is done; (a) to annul the slight pain of the spinal puncture, (b) to allay the excitement of going to the operating room, (c) to lessen the dread of being operated upon while awake, and (d) to mitigate the psychic effects in every way. A few surgeons have advocated repeating the above fifteen minutes before the operation, but most operators object to loss of consciousness from narcotics as it greatly increases the danger.

The injection:

When the patient is brought to the operating room he is placed sitting up across the table with his feet resting on a stool. An assistant, who stands on another stool, so that he stands higher than the patient, passes his left axilla over the back of the patient's neck and with his left arm passing in front of the patient's abdomen grasps the patient's left wrist and arches the patient's back backward. The patient's back having been previously iodized and the crests of both iliums marked with iodine, a Quincke's

spinal puncture is made, the stilette is removed and a few drops of spinal fluid is allowed to spill to be sure it is free from blood. The top of the ampoule containing the novocain crystals having been previously cut off, the spinal fluid is allowed to drip in the ampoule, filling it and dissolving the crystals. From ten to fifty cc., according to the spinal pressure and the height of the desired anesthesia, is further removed, and the novocain dissolved in the three cc. of spinal fluid is drawn up into the hot ten cc., syringe and connected with the spinal needle in situ., three cc. more spinal fluid drawn back into the syringe, injecting four cc. back into the canal, three more cc. withdrawn, four cc. injected back again and then three cc. more withdrawn and the entire quantity reinjected. By this method one is always certain that the needle is within the subarachnoid space. If high anesthesia is desired more force in injecting is used than if low anesthesia is wanted. Also the larger the dose of novocain the higher and more prolonged the anesthesia.

Site of injection:

My technique has been to use the space between the 2d and 3d or the 3d and 4th lumbar vertebrae and if a higher anesthesia is desired to supplement it with a very light ether anesthetic. Many operators vary the height of the site of the injection to correspond with the height of the anesthesia desired. Babcock uses the 10th to 12th dorsal space for stomach and gallbladders, 1st lumbar for pelvic and lower abdominal operations, the 2d lumbar for operations on the legs and feet and the 3d and 4th lumbar for rectal and perineal operations.

Anesthetic used:

Cocain was used in the first spinal anesthesia by J. Leonard Corning of New York in 1885. It is supposed to have been extradural. In 1889 Quincke devised Quincke's spinal puncture as used at present and in the same year Augustus Bier of Bonn, experimenting on his own body, used to produce intradural spinal anesthesia. On account of the high toxicity of cocain producing a high mortality and spinal cord lesions, spinal anesthesia was soon abandoned.

Stovain was discovered by Forneau in 1904 and spinal anesthesia was revived that year by some French surgeons especially Reclus and Tuffier. In the fall of 1904 Babcock of Philadelphia began his work with spinal anesthesia and in October, 1922, reported the results of more than 17000 made by himself and associates. While he has used nearly all local anesthetics, having

used cocain, eucain-lactate, tropococain, stovain, alypin, procain, and butyn, he now uses only stovain and butyn. Formerly he used solutions of two different specific gravities, one having a specific gravity lighter than that of the cerebro-spinal fluid and the other higher, but now he uses only the lighter one. The solutions are made up of stovain 0.08, or butyn 0.04, dissolved in lactic acid 0.02, ethyl alcohol, pure, 0.02, distilled water q.s. 2.00 cc. The dose of the solution for an infant two days old is 0.2, cc., child of twelve years 1.00, cc., and for an adult 1.10 to 1.50 cc. He says he uses the lactic acid to prevent the precipitate of the stovain by the alkaline cerebro-spinal fluid and the alcohol to lower the specific gravity.

Yount of Panama in his 1917 report used stovain in a solution having a higher specific gravity than the cerebro-spinal fluid.

Case, of Battle Creek, uses a preparation put up by the French, Scourcain and Suprarenin in an isotonic salt solution. This is the preparation I used in the beginning. I believe most operators in this country use sterilized novocain crystals 120 mg. to 200 mg. put up in glass ampoules.

Novocain does not produce anesthesia instantly as does stovain but requires from two to fifteen minutes. On the other hand, stovain is much more effective, but is more toxic and more dangerous.

Effects of spinal anesthesia:

In from two to fifteen minutes after the injection of the novocain, the patient complains of a tingling beginning at the feet and extending up the legs and into the abdomen, usually describing it as the legs going to sleep. This is followed by a dullness, then a heaviness, then loss of motion, loss of pain sensation and finally loss of sensation to touch. "The protopathic, or pain sense, involves a wider area than the epicritic, or touch, so it is possible for a patient to feel the touch of the knife to the skin as well as experience the motor sensation and yet feel no pain. The senses return in the reverse order receding like a wave from above downward." (Sterling and Lawrence, Urological Review, Vol. 26, No. 2, 1922.) As the loss of sensation occurs there is a drop of blood pressure, which with novocain usually reaches its minimum in fifteen to twenty minutes and then remains more or less constant for a variable time and returns back to normal after the return of the sensations. The depths of the drop is variable, usually from 20 to 100 mm. but a complete loss of diastolic is not uncommon.

mon and we have frequently seen a systolic drop to 22 mm. and occasionally become imperceptible, doing no apparent harm except giving the operator a fright which has added many to the number of his gray hairs.

Vomiting has occasionally occurred on the operating table. It has occurred where the anesthetic has reached a too high level and there has been a profound drop in the blood pressure, but more frequently it appeared to be psychic. Reversely, the fall of blood pressure seemed to be greater the more the patient was psychically disturbed. It has occurred most frequently when the patient was frightened when he entered the operating room. One patient who had worked around the hospitals for years but who had never seen a spinal anesthesia, but who had heard patients complain of post spinal puncture headaches and other symptoms, became nauseated before the puncture was made, but it soon passed over after his fears were allayed.

Furthermore, since the operator has become much more acquainted with the condition and has become more tranquil himself, there has been less nausea and vomiting and less great fall of blood pressure. Also the majority of his cases have been used for teaching purposes, which to a certain extent is contra-indicated and these symptoms have been much more pronounced than they were when done in private and the students not present. For the above reasons it is well to keep the patient's mind diverted from the operating room, which is best done by a preliminary narcotic, and by not discussing the operation or the technique and by having some one keep him entertained. Babcock says he can recommend a professional vamp for male patients. The patients should also be made as comfortable as possible, by giving them sips of water or pieces of ice if thirsty and some even go so far as to allow them to smoke, whistle or sing. One Hebrew asked for the morning paper while we were operating on him for a hernia.

Muscular relaxation is complete, which prevents the need for powerful retraction and the intestines are contracted, falling away without filling cavity with abdominal packs, which take up needed room and produce abrasions to be followed later by adhesions. One who has been in the habit of operating in the abdomen under spinal anesthesia finds it difficult to get satisfactory inhalation anesthesia and is very apt to expect too much from the anesthetist.

While all anesthetists may not realize it, most surgeons recognize there is much more danger to operating, especially in the abdomen, with a light anesthesia with abdominal breathing and muscular rigidity. There is more danger of shock, more time is required, hemorrhage is more difficult to control and an easy operation is converted into one of great difficulty.

Height of anesthesia:

In my experience the height of the anesthesia has varied inversely with the fall of the blood pressure those having a very high anesthesia had a very great drop in blood pressure and conversely where the anesthesia failed, the drop in blood pressure was practically nil. With those having a moderate fall of blood pressure the epicritic or touch sense usually was obliterated around the level of the umbilicus while the absence of the protopathic or pain sense extended higher to the edge of the costal cartilages or even the fourth rib. Frequently, when there was no sensation in the abdominal wall, the patient would complain when traction was made on the higher abdominal viscera.

The height of the anesthesia is affected by the size of the dose of the drug, by the force with which it is injected and by the height of the site of injection. Labat gives the dose of novocain as 0.01 for every fifteen pounds of body weight and like Babcock uses a higher level for injecting for operations upon the upper abdomen. Personally the writer has confined his injections to the filum terminale having not had sufficient courage to inject that portion of the canal through which the cord extends. However he may do so later. Where the anesthesia has not risen to a sufficient height he has found it practical to give them ether and it has been surprising how easy it was administered and how little was required.

Ether raises the blood pressure and is given by some to counteract the drop from the spinal injection.

Duration of anesthesia:

As stated above stovain acts almost instantaneously while novocain requires from two to fifteen minutes and the anesthesia usually lasts from fifty minutes to two hours. In the writer's experience this has been very variable. In one case it lasted only fifteen minutes but this was when he was using the ampoules containing the salt solution and thinks that perhaps the novocain had been affected by the alkalinity for it was not unusual to notice a precipitate

when the spinal fluid came in contact with the solution.

Post operative effects:

Anoci-association, as advocated by Crile is carried out to the last word, the field of operation being completely divorced from the cerebral centers, all sensations being completely blocked without disturbing the brain.

Post anesthetic vomiting is reduced to almost nil and when it does occur it is usually very light. Post operative vomiting will occur if there be peritonitis but this is not post anesthetic vomiting.

Tympanites is very much lessened because the intestines are contracted, peristalsis increased, the sphincters relaxed, and fluids and food continued without cessation preventing dehydration.

Retention of urine is not increased, perhaps is decreased, for the same reasons that tympanites is decreased and because the drug does not effect the functions of the kidneys. Also voluntary control of the entire body is recovered entirely in approximately two hours after the injection.

Anesthetic pneumonia does not occur because the drug has no effect on the lungs, neither has it on the liver.

Post operative care is especially reduced.

The patient having not lost consciousness there is no danger of asphyxiation from swallowing his tongue or from inspiration pneumonia as a result of vomiting and he is more easily controlled for he has not lost his sense of orientation.

Post anesthetic cord lesions:

In my series there has been none, nor can there be if infection is not introduced, because "the anesthesia is not a cord anesthesia but a root anesthesia, the fluid not injected into the cord but into the cavity of the spinal subarachnoid." (Babcock). Since cocaine was abandoned I have not been able to find post operative cord lesions reported; not even among those who make high injections going as high as the tenth dorsal. Bickham states that while the injection should be made into the subarachnoid cavity, that puncture of the cord does no harm.

MORTALITY

In my series there have been no deaths as a result of spinal anesthesia, although as stated above I have had some extremely severe frights. Babcock reports nine deaths on the table, the patients all being in extremis when placed on the table, and one

death two days later which he says was the result of tardy and bungling efforts at resuscitation, in his first series of 5000 cases and no mortality since 1914 in 12000 cases. He says, "if spinal anesthesia is dangerous it is because it is used carelessly without proper recourse to the necessary safeguards and antidotal measures." "Used upon unselected cases and those who are bad surgical risks, without special safeguards, a mortality of 1 in 500 may be expected. Used upon selected cases with careful supervision, the mortality is probably less than 1 in 10000."

Steel had three deaths in the past fourteen years in 5000 cases, none occurring in the past five years. (Penn Medical Journal, February, 1923.)

Yount, in a series of 5160 cases given by twenty-six different doctors, had one death which occurred during spinal puncture and before the anesthetic was introduced. It was being given by an inexperienced doctor. This series does not include pelvic operations. In another series of 990 cases, all pelvic operations, there were three deaths, all occurring while the patients were in a Trendelenberg position and the solutions used were all of high specific gravity. (Surgery, Gynecology and Obstetrics 1917. Volume 25.)

(Year Book Surgery 1924): B. Desples since 1909 has given 2000 cases with no deaths and no permanent sequellae, but he did have 10 complete failures. J. Duvergey had 1 death in 2250 with 87% perfect analgesias and 13% of minor disturbances.

ANESTHETIC OF CHOICE.

With us in all cases where we have gotten the results that are to be expected it is the anesthetic of choice in all operations below the diaphragm. In a small per cent of the cases there have been unsatisfactory disturbances, but these were mostly due to lack of experience and judgment on our part which we think we are rapidly overcoming. Even in those cases where the sensations were not completely obliterated, it required only a minimum amount of ether, and frequently not more than a dram and never more than one and one half ounces to inhibit the pain and finish the operation with complete relaxation. In the two gallbladder cases, both injections having been made at the 3d lumbar space, the relaxation was perfect; one required no ether but had slight pain, not enough to disturb, when traction was made on the abdominal wall, while the other two required

a very little ether to give perfect anesthesia.

The appendicitis case, where the anesthesia extended only to the knees, was a profound neurasthenic and occurred early in our series, being the seventh case, and required only a very small amount of ether to give absolutely satisfactory results.

Should we not be able to overcome the disadvantages of the past we would still say that spinal anesthesia is still the best anesthetic we know for certain operations and certain conditions. We believe it is the anesthetic of choice for prostatectomies, ventral hernias, some acute abdominal infections and for reductions of fractures of the femur. In patients having marked hypertension, aneurysms, diabetes, nephritis, pulmonary tuberculosis, bronchitis, asthma and toxic goitre, requiring extensive operations below the diaphragm we believe it should be used.

In prostatectomies it becomes the ideal anesthetic because, with the complete relaxation and with pressure in the relaxed rectum, the prostate may be pressed forward making it more accessible and be removed through a small incision into the bladder. Post operatively it is advantageous on account of not having to discontinue fluids by mouth for the anesthetic, and unlike ether has no damaging effects on the kidneys, anoci-association is complete and the flow of urine is not diminished.

In ventral hernias the relaxation is complete, abdominal respiration is absent, the intestines are contracted and fall out of the way and the operation is made less arduous and on account of the relaxation of the rectal sphincters and increased peristalsis there is less post operative vomiting and tympanites and less strain on the abdominal repair.

In acute abdominal conditions owing to the complete relaxation and contraction of the intestines, the work may be done through a smaller incision and there being less post operative vomiting and tympanites there is less danger of post operative hernia where drainage has been instituted.

In fractures of the femur the relaxation is complete and anesthesia perfect for sufficient time to apply the necessary retention splints.

In diabetics requiring an operation, ether is absolutely contra-indicated and spinal anesthesia becomes the anesthetic of choice.

In nephritics, inhalation anesthetics are toxic to the kidneys and should not be used, whereas they are unaffected by spinal.

In pulmonary tuberculosis, bronchitis, and asthma, all inhalation anesthetics aggravate the conditions but spinal does not. In my series there was one acute appendicitis in an acute bronchitis case and another case with asthma and chronic bronchitis had large and distressing double inguinal hernia. In both cases spinal anesthesia was extremely satisfactory.

In individuals with marked hypertension or aneurysms a sudden rise of blood pressure, as occurs with ether or gas, may be dangerous. With the lowered blood pressure of spinal anesthesia this danger is obviated.

In toxic goitre the shock of an inhalation anesthetic may be fatal. Should these patients develop acute appendicitis or other troubles below the diaphragm requiring operations, spinal anesthesia is the desirable anesthetic because Crile's anoci-association may be completely produced.

CONTRA-INDICATIONS TO SPINAL ANESTHESIA

The principal contra-indications are shock and marked hypotension. It is also contra-indicated in large mediastinal tumors, large pleural effusions, and conditions producing a fixation of the diaphragm. Also in very large abdominal tumors and very great distention of the abdomen which cannot be quickly relieved, it is said to be dangerous on account of the embarrassed respiration. With this latter I have had no experience.

In shock and marked hypotension, that is below 100 systolic, and in myocarditis the condition is rendered more dangerous by the further reduction of blood pressure.

In octogenarians it is said to be contra-indicated for they are bad risks, but they are bad risks anyway, even without operation or anesthesia. I have had but one experience in this class, a man of 87, on whom I was forced to do a prostatectomy. This was my 4th case. He had profound shock on the table from which he completely recovered but died several days later of uremia.

It is also contra-indicated when there is disease of the lower end of the spine or back, e.g. Potts disease or bed sores.

OBJECTIONAL FEATURES OF SPINAL ANESTHESIA

1—It requires special training and I would now advise no one to use it until he has had training under some one who has had considerable experience with it. For it

becomes highly dangerous through slight errors.

2—The difficulty of regulating the height of the anesthetic is a great disadvantage.

3—It should not be used while there is very marked hypotension or shock.

4—It is dangerous for the surgeon to use it where the patient objects to it.

5—Is difficult to use in children, although Babcock uses it at all ages. He has used it in the new born for imperforate anus.

6—It is difficult to use in neurasthenics, but Babcock does not let this prevent him.

7—It has not been standardized, there having been no standard method devised.

8—It has not been popularized and may lead to unjust criticisms and censure of the operator should bad results occur. For this reason it is probably better to not use it in patients who have cerebro-spinal syphilis and who are likely at any time to have cord or brain lesions develop.

9—One must always be prepared to give other anesthesia, ether inhalation or local, because it occasionally fails or in prolonged operations does not last long enough.

CONCLUSIONS

I would close by quoting Yount who says "So much misconception is prevalent in regard to spinal anesthesia that it has failed to receive its merited position among other valuable anesthetics. This misconception is largely the result of reports of small series of cases in which this method has been proclaimed with undue enthusiasm or has received unwarranted condemnation. Reports of isolated cases in which the results have been unsatisfactory or disastrous in the hands of those trying the method for the first time have done much to discredit it. Several large series of cases have been reported in the last few years which represent years of experimental and clinical observation of the method, and upon these should be based the true estimate of the value of spinal anesthesia. The general tendency has been to assume a more conservative attitude in regard to its use and to admit certain limitations and some objectionable features, but practically all agree that it has a distinct field of usefulness." (Surgery, Gynecology and Obstetrics, 1917, 25.)

Diagnosis of Gall Bladder Disease.

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Read at the Annual Meeting of the Kansas Medical Society at Topeka, May 5, 6, 7, 1925.

The first step in the rational management of any disease of the gall bladder is a correct diagnosis. Without such diagnosis, treatment is irrational, unscientific and usually inefficient.

The gall bladder is deep seated. It is in close anatomical relation with other important structures. Its lymphatic circulation is closely related to that of the pancreas, stomach and intestine. Its nerve supply is directly related to that of other parts of the body and to that of other important organs. These principal conditions often cause trouble for the diagnostician.

A sudden attack of severe pain in the right upper quadrant of the abdomen accompanied by sweating and vomiting, requiring a hypodermic of morphine for relief and followed in one or two days by jaundice, indicates the presence of gall stones. However, such combination of symptoms does not always occur. Haggard¹ has collected statistics showing that jaundice is absent in more than 80% of all cases of gall stones. Ochesner² states that the frequency of jaundice has been greatly over-estimated. He says that in the majority of cases, it does not occur at all and in only a few cases does it occur in marked degree. In the absence of jaundice and of bile in the urine it may be difficult to decide whether the pain, vomiting and sweating were caused by a renal or by a biliary colic.

Gall stones may exist and not cause a typical attack of biliary colic. A typical attack of biliary colic may occur in the absence of gall stones. The only symptom of gall bladder disease may be a disordered stomach.

Within recent years the laboratory has expended considerable time and considerable energy upon problems connected with the diagnosis of gall bladder disease.

In 1917, Meltzer,³ who had perfected a process of obtaining separately bile from the common duct, the gall bladder and the hepatic duct, and who had studied the physical and bacteriological characteristics of bile from each location; published an interesting paper. Lyon,⁴ two years later, published the results of his experiments along the same line and elaborated upon the previous work of Meltzer. The Meltzer-Lyon test was regarded as a rather valuable addition to the methods of the diagnostician.

Considerable time was spent in the study of A bile, B bile and C bile but the test was found to be of little practical value in hospital work and of no practical value at the bedside.

X-ray workers have long attempted to perfect methods of producing on the film shadows of gall stones and shadows of gall bladders. The best Roentgenologists claim success in 30% to 50% of cases. In many of these "successful" cases, there is an element of doubt. Often the shadows are not observed until stones are demonstrated at operation or autopsy. Then the x-ray man goes back to his film and with considerable enthusiasm points out the picture of the stone. Such uncertainty in the case of a negative film, befogs the diagnosis and undermines the patient's confidence.

Graham, Cole and Copher,⁵ in 1924, published an interesting paper on the use of the sodium salt of phenoltetrabromphthalein in x-ray diagnostics of the gall bladder and its contents. This salt is eliminated by the liver. In the bile ducts and gall bladder it casts a shadow upon the film as does bismuth or barium in the stomach. The authors were able to demonstrate different degrees of distensibility which was greatest on four hour and eight hour plates. A great many other workers have followed this plan and have demonstrated the same gall bladder shadows and have demonstrated shadows of gall stones more clearly than they could without the salt. It seems that this procedure will not come into general use.

A careful study of the methods of establishing a diagnosis of disease of the gall bladder, brings out the fact that we must rely almost entirely upon physical examination and clinical history.

Physical examination alone does not reveal very much. In acute inflammatory conditions there is tenderness in the region of the gall bladder and in case of involvement of the peritoneum, there is rigidity. In less acute inflammatory conditions there is less tenderness. Such tenderness may be located by placing the patient in a semi-sitting position and then making pressure with the finger tips causing them to sink more deeply with each expiration until pressure upon the tender gall bladder causes pain. The percussion method of Murphy is valuable but painful. A greatly distended gallbladder may be palpated if the abdominal walls are not too thick. A mass in this region must be differentiated from a movable kidney, from a tumor originating

in the kidney, from an abnormally shaped lobe of the liver and from a neoplasm of the hepatic flexure of the colon. A carcinoma of the gall bladder cannot be palpated until it has involved adjacent tissues. Rise in temperature, jaundice, bile in the urine and clay colored stools are significant and well understood.

The clinical history is of the greatest importance. It must be accurate. Established methods of obtaining evidence in courts of law could be studied with profit by everyone who takes case histories.

In law, getting the truth out of a witness has been reduced to a science. Hearsay evidence is not admitted. Friends and relatives of a patient would not be permitted to color the evidence with their own observations and interpretations of symptoms. Physicians often permit some member of the family to assume the burden of relating the history of the case. In court, leading questions are not permitted. In taking a case history, it is possible for the physician to permit some idea to become uppermost in his mind and then unconsciously to lead his patient away from very essential facts. In court the witness is not permitted to produce argument. In taking a case history, the physician often finds himself involved in an argument with his patient and finds both himself and the patient getting away from the truth instead of carefully searching for it. In court, there is a cross examination to clear up doubtful points. Before the final analysis, the jury is often instructed to consider the demeanor of the witness. An accurate appraisal of the mental characteristics of the patient is essential. Her craving for sympathy, her disposition to minimize or exaggerate symptoms must be weighed.

The presence of the usual causes of gall bladder infection should be carefully ascertained. The common causes of gall bladder infection in the order of their frequency are colon bacillus, typhoid bacillus and influenza bacillus.⁶ A history of a colon infection, of typhoid fever or of influenza is a link in the chain of evidence. It may be possible to discover a point of focal infection in the mouth, throat, ears, accessory sinuses, appendix, kidney, tubes or cervix uteri. Many women who have gall bladder disease had their first attack just after a confinement.

In most instances of gall bladder disease, pain is the first and, to the patient, the most important symptom.

The distribution of pain is characteristic

and is based upon the anatomy of certain parts of the nervous system. The coeliac plexus corresponding to the lower six thoracic segments of the cord supplies the gall bladder in greater part. This plexus brings into close relation with the gallbladder the costal margins, the epigastrium, the region of the lower sternum, the back and the arms. The vagus sends a branch to the gallbladder. The phrenic occasionally sends a branch to the same organ.

An acute pain originating in the gall bladder is usually reflected to all parts supplied by the coeliac plexus. The pain is felt along the costal margins, in the lower sternal region and in the back where it is usually worse under the angle of the scapula. It may be felt in the cardiac region and in the arms. The irritation of the branch of the vagus causes a slowing of the heart beat and sometimes intermission or irregularity. This disturbance of rate and rythm associated with the pain in the epigastrium, cardiac region and possibly in the arms may mask the more important symptoms and direct attention to the heart alone. Associated with the acute pain is vomiting. This is caused by irritation of the gallbladder branch of the vagus.

The pain of acute cholecystitis is accompanied by tenderness at first and later by rigidity in the region of the gall bladder. Bunts⁷ has called attention to the possibility of mistaking an attack of renal colic on the right side or mistaking an ectopic pregnancy on the right side for an attack of acute cholecystitis and cites cases to prove his contention. Deaver⁸ has called attention to the fact that an acute inflammation of an appendix which was arrested in its embryological descent and is located higher than its usual situation may be mistaken for an acute inflammation of the gall bladder. He thinks that generalized abdominal pain in the beginning of the attack is the principal point of differentiation.

Perforation of a duodenal ulcer may be confused with acute gall bladder disease. A perforation is usually preceded by a fairly well defined history of ulcer. The pain is greater and the rigidity is of greater extent and is much more pronounced.

An acute cholecystitis may occur either with or without the presence of stones. Chas J. Mayo⁹ is authority for the statement that in the case without stones the attack is more prolonged, pain and tenderness linger, while in the case with stones,

there is sudden cessation and little tenderness.

The chronic cases or the case without marked acute attacks presents greater difficulties. In these cases the stomach symptoms are usually uppermost. The most usual symptom is that of fermentation and the formation of large amounts of gas. Foods that are slowly digested are not well borne. Pain may be present but it is not of severe type. It is irregular in time of occurrence. Hyperacidity is often present. These stomach conditions are the result of irritation of the gall bladder branch of the vagus.

Ulcer of the stomach or of the duodenum should not be confused with the stomach disorders arising from gall bladder irritation. The ulcer pain has a definite history. It occurs at definite times. It is usually worse in the spring and fall. It is usually relieved by taking a small quantity of food. It never comes in an attack that requires morphine for relief. Gross pathology of the stomach and first part of the duodenum may be demonstrated or disproved by the x-ray.

The Roentgen ray has brought to us considerable information concerning the colon.

Jordan¹⁰ has recently called attention to functional diseases of the colon and to the methods of diagnosis employed in the Lahay Clinic. Attention is called to the spastic colon which is felt rolling under the examining fingers as a thickened band. Attention is also called to the fact that these functional diseases are sometimes mistaken for appendicitis and for cholecystitis.

White¹¹ has recently published the conclusions formed in his study of the redundant colon. In a series of 167 post mortems he found the colon varying in length from three feet four inches to ten feet and ten inches. X-ray workers have begun to note the many coils and loops in these redundant colons. The possessors of such colons often complain of pain simulating gall bladder disease and the luckless surgeon who operates in expectation of finding gall stones finds only a gall bladder that empties readily and is normal to palpation and inspection.

Harris, a few years ago, published an article concerning his work on peritoneal bands. This work has been followed up and elaborated in Cornell. These peritoneal bands are the result of arrested embryonic development. They restrict the normal function of the intestinal tract and may cause symptoms that cannot be differentiated from biliary colic. Such acute attacks

are usually accompanied by toxemia and extreme pain. The presence of these bands can be demonstrated by the x-ray. The patient usually has a history of indigestion and a history of abdominal distension when a baby.

Cancer of the gall bladder in 87% of Deaver's cases was associated with a history of biliary colic. It is usually detected only at the time of operation or after it has invaded the liver and has passed beyond all hope of relief. Cancer of the body of the gall bladder may exist a long time before involvement of the liver. There usually is no history of pain immediately before the beginning of the persistent jaundice.

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The After-Sanatorium Care of Arrested Cases of Tuberculosis.

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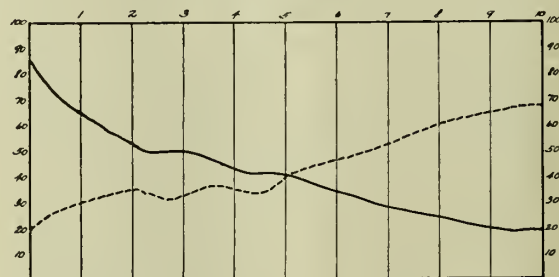
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Before beginning the discussion of the actual after-sanatorium care of an arrested case of tuberculosis, it would be well to summarize the benefits which the case has received, or should have received, from his stay at the sanatorium. First, he should have been impressed with the fact that the medical and nursing staff accomplished, by their own actual efforts, but five or ten per cent of the total process of arrestment; the remainder has been done by the patient under their direction. Second, the case has been drilled in the routine of rest, quiet, diet and relaxation. Like learning the multiplication table, these things have been repeated over and over again until they have become ingrained as habits to such a degree as to cause a conscious or subconscious feeling of actual guilt when the routine is for any reason interrupted. Third, he has been "set right" with his circumstances and environment to a more or less complete degree. It is a fact that almost all tuberculosis patients, during the stage of activity of their disease, have certain aversions, inferiority-complexes, or fetishes which are a hindrance to their progress, and which

must be eradicated before they can face the problem of tuberculosis in themselves with assurance and equanimity. In other words, an attempt has been made to have the patient take inventory of his assets and liabilities and adjust these to the circumstances about him. Further, the fact has been impressed upon him that **arrestment of the disease and healing of the tuberculosis process** are two different things—that, while it is possible to cicatrize the lesion with fibrous tissue and keep it from spreading during the stay of a few months at the sanatorium, the infiltration of these cicatrices with calcium is a much slower process, one of years, perhaps¹, and one which must be encouraged and aided after leaving the institution. In other words, that the main factor in the complete healing of tuberculosis, is **time**². Metaphorically speaking, the sanatorium has been a university wherein the patient was given a course in education and training for his most important lifework—the care of himself and the prevention of infection of his family or associates.

As has been stated, time is the most important factor in the cure of tuberculosis. The other factors: rest, lowered threshold of activity, etc., must not be minimized. A tuberculous lesion is not completely healed until it has contracted and is firmly calcified. Even a calcified area may contain virulent organisms for years; ³and, while the organisms are living, this area is a focus of potential spread, sufficient overexertion, severe or long-continued illness may cause this area to break down and infect new tissue. The process of calcification takes from three to eight years^{1,4}; therefore the patient must be made to see that he must continue treatment for years, gradually resuming greater activity and relaxing his vigilance and treatment. This may be illustrated by the graph below:

REST-TREATMENT CURVE.



The figures on the horizontal lines refer to the years after discharge from the sanatorium. The figures on the perpendicular lines are percentages. The solid line is the treatment curve. The broken line is the activity curve.

It will be seen that the treatment-curve drops rather rapidly during the first year or two, and more gradually from thence on. The reason for this is the fact that treatment needs must compromise with actual circumstance—a living must be made, visitors entertained, certain chores done. Greater than these, the patient must “fall into his stride”; to learn from experience that overtaxation of strength retards ultimate healing or brings on disaster, and that he must govern himself according to his limitations. As time goes on, he learns this; perhaps one or two setbacks have made him wary. Later proper care of himself becomes habitual and there is less variation in the curve.

The activity-curve rises rather slowly at first. Upon discharge, the fear of the disease is active; the case has seen adverse results; the memory of these is quite fresh, and he has been impressed with the necessity of resuming activity gradually. Check-up examinations are frequent, at which times he is again admonished to rest well. After a year or two, however, especially if convalescence has been fairly regular, the spectre of fear gradually recedes; the patient is not dead, he feels well, and perhaps sets up in some new business activity. If he weathers the first four or five years and has learned the key to rational care of himself, the amount of activity gradually and imperceptibly increases until 2-3 or 3-4 normal activity, above which the patient should never rise for any length of time for fear of harm to health.

Upon his return to the duties of life, the patient must be removed from the circumstances which broke him down, be these what they may—work or play. If he attempt to carry them on as before, it will be but a question of time in most instances until activity rearises. An exception to this might be where a patient breaks down under a normal load following severe illness, anaesthesia, pregnancy, etc. If the pathology were not widespread upon admission to the sanatorium, it is conceivable that the several months' treatment in the institution would be sufficient to enable him to carry on his duties after discharge, especially if the work be more or less sedentary and not physically or mentally exhausting. In other words, the patient must undertake life upon a lowered threshold of activity.

In the category of life-duties comes the question of childbearing. An astute observer of bygone days⁵ made the statement, “A woman with active tuberculosis

will survive her first pregnancy practically always, her second seldom, and her third practically never.” At present, improved means of diagnosis make this prognosis much more favorable; the writer has seen and examined, in the past two years, over a score of women who had borne and infected six, seven or eight children, and not only survived the ordeal, but also, through the years following, made a partial or complete clinical recovery. There is no doubt, however, that pregnancy, labor, lactation, and the care of an infant are a severe strain upon the mother with tuberculosis. These mothers give a history of slow recovery of strength and poor health for months after the confinement. The greatest number of definite “breaks” come after the second or third child, and receive treatment under a diagnosis of “neurasthenia,” “nervous breakdown,” “bronchitis,” etc., the treatment of which conditions is practically the same as that of incipient or moderately advanced tuberculosis.

These factors should be pointed out to the patient, and she should be admonished not to allow herself to become pregnant for at least five years after activity ceased; to allow a lapse of at least five years between each pregnancy, and to take months, instead of weeks, to recuperate from the labor. Even in the case of single girls of marriageable age it has been the writer's custom to discuss this phase with perfect frankness.

The question of medication often becomes an important one. The cure of tuberculosis follows a long, monotonous, and dreary course. It is but human nature to seek a short cut. The newspapers are filled with the advertisements of “cure-hawkers” who promise speedy relief to the tubercular patient. It is also human nature to “take something” for an ailment, and to forget that the symptoms that arise are but warnings of improper routine. It is less difficult to “take medicine” than to rearrange the routine. Cough, malaise, nervousness, night-sweats, stomach trouble—these are all but warnings to slow up in the mad race of living. To take medicine to stop a refractory cough is but drugging the watchful nerves, it does not stop the cause. Similarly the symptom of nervousness—it is a signal that the nervous system is being bombarded by toxemia. Proper explanation makes this clear to most patients.

However, there are some cases which insist upon being given medicine; if it is refused, they will go elsewhere for it, and the

clinician will lose the opportunity of aiding them. In such instances it is well to give some non-stimulating tonic or bitter, or Blaud's pill or the Improved Blaud's pill, with periods of rest between.

Some cases merit medication—those in which symptoms persist even after arrestment has, or apparently has, taken place. They may be placed under two broad classifications: the sympathicotonic types, and the vagotonic types. In the former there is an imbalance of the sympathetic nervous system, and the patient is easily upset; he sweats profusely, cries or laughs easily, runs a fast pulse, shows fever on slight provocation, and "wears his heart upon his sleeve," as it were. The vagotonics have a slow pulse, often a subnormal morning temperature, are not easily upset, but have more subjective symptoms, especially of the digestive type. In some instances a patient will show characteristics of both types, and in some they may alternate. No therapeutic agent has yet been found which will exert a sedative effect directly upon the sympathetics, except perhaps the extract of whole pancreas, and the writer administers this agent in cases of sympathicotonia, combining it with rhubarb and alkalies in an alkaline neutralizing cordial. In severer cases the bromides are resorted to for a short time. For the vagotonic type, atropine has been found to be most valuable, or the tincture of *nux vomica* in small doses. Hyperacidity is neutralized by alkalization with sodium bicarbonate and Mg. or Bi. as necessary. Concomitant or intercurrent diseases, such as pleurisy, influenza, acute bronchitis, etc., are treated as they arise.

The after care of children who have an incipient lesion is the same as outlined above. Their parents, however, must be fully "sold" upon the idea of prolonged efforts along this line, and they must be warned against loading upon the child's shoulders an overburden of studies, toe-dancing, athletics, and "showing-off" of its talents in school entertainments—for tubercular children are, as a rule, above average intelligence and talent. As a child is incapable of grasping the importance of the principles underlying the treatment of tuberculosis, the responsibility devolves upon the parents.

Cases that have had hemorrhages should follow the same routine, but more meticulously and for a longer time. Upon show of color of any degree, they should go to bed and remain there for at least one week—preferably two—after the bleeding has

cleared from the sputum. Calcium lactate, grs. x t. i. d., p. c., may be administered orally for one week. When the sputum is merely blood-streaked, physical and mental activity should be cut down to a minimum.

Because of the limits of this paper, the economic aspect of the after-sanatorium treatment of the poor, the uneducated, or the rich will not be discussed. Suffice it to say that the poor must usually work whether they will or no; the uneducated usually have hard labor fall to their lot; the rich often feel that money should be able to purchase health, and thus often wear themselves out chasing the will-o'-the-wisp of the "cure."

Finally the patient should be instructed to return to the sanatorium, the clinic, or his physician every six months—preferably in the Spring and Fall—for examination and check-up over a period of two or three years. If conditions are then favorable and progress has been satisfactory, the period between visits may be extended to one year, and carried out for five or six years at least. He should be taught the danger signals of retrogression: cough, malaise, poor or variable appetite continued loss of weight, fever, hemorrhage, etc., and if these become prominent, he should refer them to the clinician without delay for advice and check-up on routine.

The foregoing discussion but touches upon some of the important phases of the after-sanatorium treatment of an arrested case of tuberculosis. If, however, the principles laid down in it be accepted as a basis for procedure, a sound foundation has been laid, which is builded from the experience of over two thousand years' experience in the treatment of tuberculosis.

SUMMARY.

1. The education in the after-sanatorium care of an arrested case of tuberculosis should begin before the patient is discharged from the institution.
2. Time is the most important element in the cure of tuberculosis.
3. With continued improvement, the rigidity of treatment routine should drop gradually, and physical and mental activity gradually increase.
4. The patient should be removed from the circumstances which originally caused his break in health.
5. Women should not become pregnant for at least five years after activity ceases. Pregnancies should be at least five years

apart. A long recuperative period should follow each pregnancy and labor.

6. Medication should be followed judiciously, and not overdone.

7. Hemorrhage cases should follow the routine more carefully and for a longer period of time than the non-hemorrhagic cases.

8. The responsibility for the after-care of tubercular children devolves upon the parents who should be fully educated on this phase of this treatment.

9. The patient should return to the sanatorium or clinic every six months for a period of two or three years, then every year for a number of years for examination, check-up of condition or routine, or whenever he is not doing well.

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— R —

All in the Day

By RENIG ADE.

(Continued from page 298.)

It was possibly a coincidence that nearly all the cases of hysteria that the Doctor was called to see in the country, had as their particeps criminis that ubiquitous individual known as the "hired man."

Long, laborious, difficult trips, with tired, worn-out teams, and later cranky, non-functioning autos, to see and calm some soul whose affection found vent in wild ravings and terrifying muscular contortions, had created within the Doctor an intense dislike for the hired man.

As the Doctor prepared to leave the Hoskin's home, after the tilt with Mollie's globus hystericus, Aunt Sarah Griner approached him and dryly remarked:

"Well, as I can be of no more use here, I think I'll get along home."

This was a strong hint for a ride, and the Doctor gladly invited her to share his vehicle. He was very fond of Aunt Sarah. She was the one individual in the community on whom he could depend in time of emergency. Never did he hesitate to send for her, and never did she refuse to come. On many an occasion the stork, the Doctor and Aunt Sarah had played a three-handed game through a long weary night; and the Doctor remembered gratefully that Aunt Sarah had always insisted that he lie down

on the lounge and sleep, while the stork was making its customary circles in the air over the chimney top.

And when it became necessary to apply the humane instruments in order to terminate a cruel, hard ordeal, it was Aunt Sarah who carefully poured the chloroform on the towel, and soothingly lulled the sufferer into lands of dreams. She didn't know the danger of chloroform, having never seen a fatality.

There was no high priced, cumbersome apparatus to be transported to the sick room, to accurately administer the anaesthetics which now are much in vogue. Neither did the prospective mother, who had already brought nine children into the world, feel the necessity of a pelvic measurement every month, or the other modern scientific safeguards that surround the fortunate dweller of the cities.

Aunt Sarah was the right bower of the Doctor; not only our Doctor, but any good conscientious doctor who did his best.

After silently driving along for some time, Aunt Sarah said:

"Doctor, why do they act that way?"

The Doctor chuckled and answered:

"I don't know; I never was a girl in all my life."

Aunt Sarah sniffed and seemed slightly put out at the evasive answer. But on arriving at her home and being allowed to put a dozen roasting ears and a three-pound spring chicken in the Doctor's car, she felt better.

As the Doctor drove home through the warm, drowsy sunshine, he dreamily meditated and temporarily left the portal of his clear workaday intellect unguarded. It was at this inopportune time that the muse got in its deadly work, and the following doggeral is the result:

Of all the ills that flesh is heir to,

Of the woes that oft do strike us,
There is naught that can compare to
This old globus hystericus.

Sallie, moaning, clutching, groaning,
Pain above the umbilicus,
By exclusion, must of course be,
Diagnosed pure hystericus.

Anxious friends await our coming.
Aunt Janet and Uncle Ike is
Watching Doc, to see him conquer
Sallie's globus hystericus.

If the hired man would tell us,
When the first suspicions strike us,

We would know the casus belli
Of the globus hystericus.

Sedatives and sudarifics,
Chloral, bromides, liquor picis,
Must stand back for apo morphia,
When it comes to hystericus.
Curses on thee, hired man,
Flat-foot gink with cheek of tan.
With thy collar celluloid,
And thy caput almost void.
You have caused me grief galore,
With thy rough bucolic front,
And thy gay Lóthario stunt,
And you've made me mighty sore.
Curses on thee, hired man,
I will get you if I can.

Blessings on thee, little tab,
When my hypo up I grab,
For to soothe a stricken soul
That has lost its self-control,
And with groans and cries of pain
Seeks her love-mate to regain.
Now I load my trusty gun,
Shoot—and for a bucket run,
Take my station near at hand,
There I wait at thy command.

The Doctor chugged steadily along, passing several acquaintances along the road.

He waved his hand at Jim Henderson, who waved back in reply from the seat of a mowing machine. Thoughtlessly Henderson waved; otherwise he would not have held the whip in the waving hand, and the mules would not have considered this the invitation they had been looking for all morning to make their daily runaway. What Jim told these mules, while cutting a swath down through the corn field, would not be fit to publish. But if it be possible for a mule's ear to burn, they must have done so, while Henderson, in staccato sentences, told them frankly concerning their parentage.

It may be a eugenic secret to a great many, but the fact remains that the long-eared lady mule who so valorously balks on a hill or enthusiastically kicks a friend, cannot hope to become a mother. She may be a half-sister, or in a pinch might be an auntie, to another little mule; but nature has decreed that she shall never become a member of the mother's club.

(Aha, I hear you say; why the mule then, Dr. Watson? How do we get the long-eared ingrate?)

Listen, some more inside information, and not simply gossip. The mule is the result of the unholy alliance of a short, sawed-

off, male mule, familiarly called Jack, with the female of the horse species. You blush. I did too, when I first heard this, and promised myself never to repeat it. Since then I learn it is noised about pretty freely, so I feel under no obligation to maintain secrecy any longer. While comparatively a boy, and living on the farm, I became possessed of this bit of knowledge. However, I was always sufficiently charitable not to allow it to make any difference in my feeling towards the animals. They will not be referred to again as far as this article is concerned, more than to say that there must have been considerable barn-yard talk when the first smooth, clean-limbed Kentucky thoroughbred led her knock-kneed, long-eared offspring across the meadow lot.

Not that she was ashamed of this exhibition. Not at all. Did you ever see a mother in this frame of mind? Never does the flame of admiration die down, or even flicker, when a mother looks at her newborn offspring. The human female of the species is no exception. To her friends its physiognomy may resemble the smooth end of a cocoanut that has been carved by a blind man, but to the fond mother there is nothing that could be improved upon.

The family physician often has unswathed for his admiration something that looks like nothing in particular. It might be a roll of summer sausage, or a young badger. But woe betide the unlucky Doc who fails to see the resemblance between the exhibit and some member of the household who is lawfully entitled to be in on the deal.

We remember old Dr. Hodges, who was near-sighted, playfully patting a hot-water bottle and declaring it looked exactly like its auntie. The latter, an old maid, vowed she would never call him to see any of her children. And she never did.

The Doctor was suddenly aroused from his reverie while crossing the low bridge over the creek, by wild yells, and on looking discovered the bridge rail shamelessly occupied by a dozen naked, sunburned urchins.

"Come on in, Doc."

"We want to see you dive."

"Aw, Doc, come on, nobody can git her out."

Doc learns that "her" is a brick that has been thrown into the depths of the swimming hole.

He looks toward town, then at his watch, then at the shameless creatures about him. Guiltily he crawls out, parks the car, and in a few minutes is snorting like a grampus;

with four or five of the lilliputians attempting to board him fore and aft.

With boyish pride Doc makes the dive and recovers the brick, much to the financial gain of Skinny McElroy, who has quietly bet a fish-pole against a string of mud-cats on the result.

The time passes only too quickly, and the Doctor sees with consternation that he has wasted two hours. Hastily donning his garments, loading the car and running board with boys, fish poles and dogs, he hurries back to town as fast as safety will permit.

He has completely forgotten the strenuous program of the past twenty-four hours, and even nods genially to Harvey Eckert's hired man, who is carrying a bucket of eggs into Andrews' store.

(To be continued.)

—R—

The Rose Bengal Test for Liver Function

William J. Kerr, G. D. Delprat, N.N. Epstein and Max Dunievitz, San Francisco (*Journal A. M. A.*, Sept. 26, 1925), regard rose bengal as a dye that has advantages over other dyes, so far studied, in estimating the gross functional capacity of the liver. A vein in the cubital fossa is selected and a sample of blood is withdrawn with a syringe and discharged into a graduated centrifuge tube containing 2 c.c. of a 2 per cent solution of potassium oxalate. Without the needle being removed from the vein, either 100 or 150 mg. of the dye, in a sterile 1 per cent physiologic sodium chloride solution, is injected and the needle washed out by a further injection of 5 or 10 c.c. of the salt solution. The needle is left in the vein, and at exactly two minutes after the injection of the dye a sample of blood (10 c.c.) is withdrawn from the needle, still in situ, into a fresh syringe, and discharged into another graduated centrifuge tube containing 2 c.c. of oxalate solution. The needle is again washed by injecting 5 or 10 c.c. of physiologic sodium chlorid solution, which maneuver prevents the clotting of blood in the needle. At four and eight minutes, respectively, from the time of injection samples of blood are withdrawn and collected in an identical manner. The needle is then withdrawn from the vein in the arm, and the patient is told to remain in the darkened room for an hour. As soon as possible after collection, the blood samples are centrifugalized at a speed of 2,000 revolutions per

minute for thirty minutes. The percentage of cells and plasma in each tube is then carefully noted. From the samples of blood taken at two, four and eight minutes, respectively, after the time of injection, 3 c.c. of plasma is then diluted in separate tubes with an equal volume of physiologic sodium chlorid solution, and the color of the dye in these solutions is compared in a Helling colorimeter, with a standard solution containing 5 c.c. of plasma from the "control tube"; that is, the same amount of blood withdrawn from the vein before the injection of the dye, and 5 c.c. of a 0.0075 per cent solution of rose bengal. Having obtained the concentration of the dye in the blood sample withdrawn two minutes after the injection of the dye and knowing the total amount of the dye injected into the circulation, it is a matter of simple proportion to calculate the blood volume of the person. In a group of fifty-seven cases of cirrhosis, ascites, carcinoma of liver and bile passages, cholecystitis, nephritis, jaundice and congestive heart failure, the rate of elimination of rose bengal from the blood stream has been used as a test for liver function. The dye is eliminated almost entirely from the blood stream through the liver in a comparatively short period of time. It is harmless to the subject in a dose of from 100 to 150 mg. The results in individual cases have been reduced to an arbitrary blood-volume standard for purposes of comparison. The results in this small group of cases indicate that rose bengal is the most satisfactory dye for the estimation of liver permeability, which may give a test for gross liver function analogous to the phenolsulphonephthalein test for gross kidney function. The dye fulfills the following requirements: (a) it is nontoxic in the amounts necessary for the test; (b) it is a crystalloid; (c) it is eliminated through the liver; (d) it remains in the circulation for a sufficient length of time to allow determinations of the dye in the plasma to be made. Patients with definite cirrhosis or other extensive liver disease show a marked retention of the dye in the circulating blood. Obstruction of the biliary passages causes a retention of the dye, but in such cases there are other clinical evidences of obstruction of the biliary passages. In all other cases studied, the curves are within normal limits. The test may be of great value when jaundice and ascites are presenting symptoms. These observations suggest that there are some reciprocal functions of the liver and the kidneys.

HISTORY OF THE KANSAS MEDICAL SOCIETY

(Continued from page 303.)

The Society convened in Atchison for its twentieth annual meeting on May 18, 1886. Dr. H. O. Hannawalt, the president, called the meeting to order.

There were forty-three members in attendance at this meeting. Nineteen new members were admitted. Dr. H. M. Lane from Brazil and four physicians from Missouri were made honorary members.

"Dr. H. M. Lane from Brazil read a paper on Yellow Fever, giving a full account of Dr. Frere's method of preventing yellow fever by vaccination."

The following resolution offered by Dr. Schenck was adopted. "Resolved, That the Kansas State Medical Society approves the bill now before Congress (House bill No. 5542) 'providing for the appointment of a commission to investigate the truth of alleged discoveries of the specific cause of yellow fever and of a method of preventing that disease, and to obtain all information possible as to the cause and prevention of that diseases,' and respectfully request the representatives of this state in the National Congress to favor the passage of the bill."

The Committee on Medical Law reported in favor of a bill sent to the Society by the American Medical Association, with some changes. The report was referred to a committee with power to act and to press its passage.

The Nominating Committee included in its report a suggestion that there should be a special committee of three to report to the Society the propriety and advisability of securing some suitable place for a library for the Society.

Twenty-four delegates to the American Medical Association were appointed.

A committee, appointed at the last meeting for this purpose, made a report and submitted a draft of some proposed new Constitution and By-Laws.

The election of officers resulted in the choice of F. D. Morse for President, L. A. Buck and J. Bell for Vice-presidents, W. S. Mendenhall of Winfield for Secretary. W. W. Cochrane was re-elected Treasurer.

The twenty first annual meeting of the Society was held at Winfield on May 3 and 4. In the absence of the President the meet-

ing was called to order by L. A. Buck, Vice-president. Dr. Morse appeared later and took the chair. Twelve members answered to roll call on the first day of the meeting. Eighteen applicants for membership were admitted. Two were elected to honorary membership.

A draft of the proposed new Constitution and By-Laws was again read at this meeting but action was deferred for another year. This new constitution, which was adopted at the next annual meeting, made some very important changes in the organization. It attempted to construct the Society after the plan of the American Medical Association of that time. It will be noted that there were created three classes of members, delegates, permanent members and honorary members. There was no provision for admitting members other than those who were delegates from auxiliary societies. Having once secured his membership one could retain it as long as he cared to do so, whether he maintained his membership in the auxiliary society or not. This was also the case with members of the American Medical Association. The Society could appoint as many delegates as desired to attend the annual meeting. These delegates were eligible to fellowship in the American Medical Association and could retain that fellowship by paying the annual dues whether they remained in good standing in the state society and its auxiliary societies or not. It was, of course, impossible to build up and hold a strong membership in any of the state organizations. Another provision of this constitution that tended greatly to retard the growth of the Society was the provision that the annual dues of one dollar should be collected at the annual meeting. The natural result of this provision was that only those who attended the annual meeting ever paid any dues, and as no penalty for non-payment of dues had been provided the treasury was always depleted. Members who were five years in arrears found it cheaper to apply for membership again, when they found it convenient to attend an annual meeting.

Since the Constitution and By-Laws submitted at this meeting were adopted at the next annual meeting, and since some of the provisions therein played a very important part in the next fifteen years of the Society's history, it may be well to reproduce them at this time.* The most important

CONSTITUTION

Article I.—Name.

Section 1. The name of this Society shall be The Kansas State Medical Society.

Article II.—Objects.

Section 1. The objects of this Society shall be the advancement of medical knowledge, the elevation of the medical profession, and the promotion of all

provisions of this new constitution and by-laws will be found in Articles III, VII and VIII of the Constitution and in Articles I, II and III of the By-Laws.

The following officers were elected: President, L. A. Buck; Vice-president, J. Bell and H. D. Hill; Treasurer, W. W. Cochran; Secretary, J. E. Minney. Eleven delegates to the American Medical Association were appointed.

The twenty-second annual meeting was held in Representative Hall, Topeka, May 1, 2, and 3, 1888.

Forty members answered to the first roll call. During the session forty-five new members were admitted. Two physicians were made honorary members.

The Committee on Library read the following report: "Mr. President: Your Committee on Library beg leave to make the following report and recommendations:

First: That \$10,000 be raised for the purpose of purchasing and maintaining a library for the benefit of the Kansas Medi-

cal Society and the medical profession of the State of Kansas.

Second: That said library be located in the State Capitol, Topeka, Kansas, and be governed by the same rules and regulations as the present state library."

Respectfully submitted,

J. E. MINNEY

J. W. REDDEN

REID ALEXANDER.

The following communication from Mrs. Stormont was then read: "Whereas, my late husband, David W. Stormont, had been for many years before his death prominently connected with the medical fraternity of Kansas, and particularly devoted to and interested in the prosperity, progress and usefulness of the Kansas State Medical So-

the Judicial Council, and in the manner provided in the by-laws and by vote of three-fourths of the members present.

Article VIII.—Auxiliary Societies.

Section 1. The members of the profession in any county or district in the State may form a county or district society, which shall become auxiliary to this State Society, and entitled to send delegates whenever its constitution and by-laws have been approved by the Judicial Council of this Society.

Article IX.—Amendments.

Section 1. This Constitution may be amended or altered by the proposed amendment or alteration being submitted in full in writing at an annual meeting, and spread upon the minutes. At the next annual meeting it may be taken up and acted upon; and if the proposed amendment, or the substance thereof, receives the vote of three-fourth of the members present, it shall be adopted.

BY-LAWS.

Article I.—Duties of Officers.

Section 1. The terms of the officers shall commence at the close of the meeting at which they are elected.

Section 2. The President shall preside at all meetings of the Society, preserve order, appoint all committees not otherwise provided for, sign all orders upon the Treasurer for the payment of money when ordered by the Society, and perform such other duties as the Society may require of him. At the annual meeting during his term of office he shall deliver an address upon some appropriate subject.

Section 3. In the absence of the President, the First Vice-President, and in his absence also, the Second Vice-President shall act as President in the absence of the President and both the Vice-Presidents of the Society shall elect a President pro tempore.

Section 4. The Secretary shall keep a correct record of all the proceedings of the Society, and prepare the same for publication, and shall have charge of and carefully preserve all the books, papers and other documents of the Society, and keep a list of the members, with their post office address; notify new members of their election within thirty days thereafter; conduct the correspondence; attest all orders drawn upon the Treasurer by order of the Society; and discharge such other duties as may be required of him; and make a report of his doings, and the condition of the Society, at each annual meeting.

Section 5. The Treasurer shall have charge of the funds of the Society, collect all fees, dues and fines promptly, and keep a correct account thereof; pay out moneys only on orders signed by the President and attested by the Secretary; and at each annual meeting submit a detailed report of the exact condition of the treasury; and at the end of his term hand over to his successor all the moneys and

measures adapted to the relief of suffering, the improvement of the health and the protection of the lives of the community.

Article III.—Members.

Section 1. The Society shall consist of delegates, permanent members and honorary members.

Section 2. The delegates shall receive their appointment from organized county or district societies, in the rates of one for every five of their regular resident members, with an additional delegate for a fraction greater than one-half that number, and shall hold their appointment for one year.

Section 3. The permanent members shall consist of those who are members of this Society at the time of the adoption of this Constitution, and who shall continue to conform to the By-Laws; and of those who have served in the capacity of delegates and have maintained their membership as provided by the By-Laws.

Section 4. Physicians and surgeons eminent in the profession who are non-residents of this State, or graduates of medicine who reside in the State and have retired from practice, may be elected honorary members.

Article IV.—Officers.

Section 1. The officers of this Society shall consist of a President, two Vice-presidents, Secretary, Treasurer, Librarian, and a Judicial Council of five.

Section 2. The officers shall be elected at the annual meetings, and shall hold their offices for one year or until their successors are elected, except the Judicial Council, which shall be elected, one for one year, one for two years, one for three years, one for four years, and one for five years; and thereafter one shall be elected annually.

Article V.—Meetings.

Section 1. One regular meeting shall be held each year, at such time and place from year to year as the Society may elect. Special meetings may be held as provided by the By-Laws.

Article VI.—Code of Ethics.

Section 1. The Code of Ethics of this Society shall be that of the American Medical Association, which is hereby acknowledged as binding upon all its members.

Article VII.—Punishment.

Section 1. This Society shall have the power to censure, suspend or expel any member convicted of violating its provisions, or who may be guilty of any act which may be considered derogatory to the honor of the medical profession, on the recommendation of

ciety, and I being desirous that his name shall continue to be associated with the medical fraternity of the State and with said Kansas State Medical Society to that end and for that purpose I hereby give and bequeath to the State of Kansas, in trust, for the uses and purposes hereinafter named, the sum of \$5,000 in money, and I hereby direct my executors, named in my will, A. D., 1888, as soon after my death as may be practicable, to pay over said sum of \$5,000 to the Treasurer of the State of Kansas, which money shall constitute a perpetual endowment fund, to be known as the Stormont Medical Library Fund."

The gift of Mrs. Stormont was accepted by the Society and a committee consisting of C. H. Guibor, Reid Alexander and J. E. Minney, was appointed to carry out the provisions of the gift and to function as the Library Committee.

As usual, a proposed medical bill was submitted to the Society for its endorsement, this time from the Lyon County Medical Society. A committee was appointed to

take charge of the bill and have it introduced in the next legislature.

On the last day of the session, Chancellor Lippincott, of the State University, presented an exhaustive discussion on the advisability of establishing a medical college in connection with the University. There were many different opinions concerning the matter. It was the opinion of some that Kansas could not offer facilities and advantages for teaching medicine comparable with those of the larger eastern cities. However, there were numerous arguments in favor of the proposal and finally on motion of Dr. S. E. Sheldon, "a committee consisting of four members of the Medical Society and Chancellor Lippincott, were appointed to take under advisement the establishing of a medical college in connection with the State University of Kansas as set forth in the Chancellors' paper or other and better plans for the accomplishment of the same object."

The election of officers resulted in the selection of J. Bell for President H. D. Hill

other property in his possession belonging to his office.

Section 6. It shall be the duty of the Judicial Council to examine the constitution and by-laws of the auxiliary societies, and when approved, to transmit a copy to the Secretary of this Society with their approval. They shall examine into all ethical questions which may come up on appeal from any auxiliary society or in this Society, and give their decision thereon to this Society through the Secretary, annually.

Section 7. It shall be the duty of the Librarian to preserve all the books, pamphlets and pathological specimens belonging to the Society, and keep the same where they can be consulted and examined by the members as they may desire.

Article II.—Committees.

Section 1. Four regular committees shall be appointed at each annual meeting, to report at the next annual meeting, to wit: A Committee on Practical Medicine; a Committee on Surgery; a Committee on Obstetrics; and a Committee on Materia Medica. Special committees may be appointed to report on special subjects, on recommendation of the Nominating Committee.

Section 2. The Committee on Nominations shall consist of three members from each county represented in the meeting of the Society, who shall report to the Society the names of suitable persons for officers and for the regular committees for the ensuing year. They may also nominate special committees to report on such subjects as they may deem advisable.

Section 3. At each meeting there shall also be appointed a Committee of Arrangements and Credentials for the ensuing meeting, whose duty shall be to make all necessary arrangements for the meeting, prepare the program and examine the credentials of all delegates and permanent members who shall attend, and report the same to the Society.

Article III.—Fees and Dues.

Section 1. Every permanent member, and every delegate not already a permanent member, shall pay an initiation fee of three dollars, and every member and delegate shall pay annual dues of one dollar. Assessments may be made at any meeting by a vote of two-thirds of the members present.

Section 2. The initiation fee shall be three dollars, every member shall pay one dollar dues, annually, to be collected at the annual meeting. Assessments

may be made at any meeting by a vote of two-thirds of the members present.

Section 3. The penalty for a violation of the Constitution, By-Laws or Code of Ethics shall be fine, suspension or expulsion. An affirmative vote of three-fourths of the members present shall be necessary for suspension or expulsion, to be taken after the decision of the Judicial Council, and without debate.

Article IV.—Miscellaneous.

Section 1. **Quorum.**—Five members shall constitute a quorum for the transaction of business.

Section 2. **Special Meetings.**—Special meetings may be called by the President and Secretary, on the written request of three members, the Secretary to give ten days' notice to each member, of the time and place and objects of said meeting; and no business shall be transacted except such as shall have been designated in the call.

Section 3. **Notices.**—A notice shall be valid which has been served personally, or by writing deposited in the post-office to the address of the party.

Section 4. **Usage.**—Parliamentary usage shall govern in the transaction of business, when not otherwise provided for.

Section 5. **Amendments.**—These By-Laws may be suspended or amended at an annual meeting, by a resolution submitted in writing, and receiving a two-thirds majority of the members present.

Article V.—Order of Business.

1. Reading of minutes of previous meeting.
2. Report of Committee of Arrangements and Credentials.
3. Calling the roll of members.
4. Election of new members.
5. Address of President.
6. Appointment of Auditing and Nominating Committees.
7. Reports of officers.
8. Reports of regular committees.
9. Reports of special committees.
10. Reading of volunteer papers and communications.
11. Report of Nominating Committee, and action on same.
12. Report of Committee on Necrology, Auditing Committee.
13. Miscellaneous business, appointing committees.
14. Adjournment.

and James A. Lane for Vice-Presidents; W. W. Cochrane for Treasurer; J. E. Minney for Secretary. Seven delegates to the American Medical Association were appointed. The Constitution and By-Laws submitted at the last annual meeting were adopted as read.

—R—

UNIVERSITY OF KANSAS CLINICS

Clinic of A. L. Skoog, M. D.

Department of Neuropsychiatry.

A CASE OF SYPHILITIC MYELITIS.

Mr. C., age 46 years, white, works as a pipe fitter. Wife and four children are living and well. No miscarriages are recorded. The patient was referred by Dr. C. L. Patton of Olpe, Kansas, and admitted to Bell Memorial Hospital on June 9, 1925. The chief complaint at that time was an inability to walk, almost complete loss of control of lower extremities, constipation, and inability to urinate.

Present Illness.—Began about May 20, 1925, when patient suddenly discovered "that he could not satisfy his desire to urinate." After a few hours he developed a weakness and tremor of the lower extremities. He had some aching in calves of both legs and there was tenderness to touch. During the second day patient was able to walk some but had much difficulty. Pain and tenderness of lower limbs increased.

About March 9, 1925, patient had a sore on inside of upper lip which was called a "chancre sore." This persisted for two months but did not increase in size. Several doctors were consulted, one suggested that some "shots" would be beneficial. Patient received one injection in left arm and two in each buttock. The sore healed rapidly. Patient has had no skin eruption, or gastrointestinal upset prior to present complaint, but has had no desire to urinate or defecate. The sexual capacity was lost early.

Past History.—Usual childhood diseases are noted. Otherwise patient has had excellent health and has been a hard worker. Heredity was good.

Physical Examination.—A marked pyorrhea was noted. There were several snags and some teeth missing. Some lymphatic glands were palpated in the neck. No cardio-vascular troubles were in evidence. He had a systolic blood pressure of 125 and diastolic of 75. The chest and spine were normal. The pulse rate was 72. There was a slight tenderness in the gall-bladder

region. Liver dullness was down one finger breadth. Spleen was not palpable. Patient was well nourished, in no pain or distress, but walked only with great difficulty and requiring much support. In bed, the patient was able to move legs only with assistance of hands and arms. Cranial nerves were negative. The pupils had normal functions. Some nystagmus to the right was observed. Mental condition was good. The lower extremities were quite tender to pressure. There was a bilateral positive Babinski. The patellar and Achilles reflexes were equally exaggerated. Motor, sensory, coordinating, trophic and reflex functions in the upper extremities were found normal.

Blood Examination.—Showed 3,800,000 R.B.C. 8,200 W.B.C. hemoglobin 87%. Blood Wassermann was 2 plus and Kahn 4 plus. Urine analyses reported nothing abnormal. A lumbar puncture was done on the second hospital day. The spinal fluid pressure was found to be 24 millimeters by the mercury manometer. About 20 cubic centimeters of clear fluid were removed, leaving the spinal fluid pressure at ten millimeters. The patient was slightly hypotensive. The laboratory analyses gave a 2 plus Wassermann, slightly positive Pandy, cell count of 9 lymphocytes, and goldsol reading of 2344322100.

Consultation with Dr. Ockerblad was called on July 8th, and 31st, regarding the bladder condition and an acute right epididymitis. After eleven days in the hospital the spinal fluid gave a cell count of 15, Pandy positive, and a 2 plus Wassermann.

The patient was given massive iodide therapy by mouth, the dose increased from 30 drops three times daily to 6 drams and 20 drops at the end of forty-nine days. Daily enemas and laxatives were required for the first ten days. Afterwards, only laxatives were employed. Frequent catheterization was necessary. A retention catheter was used for one week after three weeks hospitalization. The patient was able to urinate voluntarily a few days later.

The patient was up in a wheel chair on the eleventh hospital day, feeling stronger and doing nicely. On the thirty-fourth day, he said that normal sensations were returning especially in regard to urination and defecation. Later he was able to walk well.

Another spinal puncture was made on the 17th of July, thirty-seventh day. The spinal fluid pressure was 25 millimeters mercury and reduced to ten millimeters.

The laboratory report gave a positive Pandy, cell count of 13 lymphocytes, Wassermann 4 plus and goldsol 1223332100. The iodides were reduced to 2 drams three times daily. Other medicine consisted of urotropin, mineral oil, cascara, and alkalines.

Two problems in particular are of interest in this case, (1) the diagnosis, and (2) the treatment which has been followed.

In looking for a diagnosis we are attracted at once to the lower portion of the spinal cord for the anatomical location. However, we are not unmindful of the possibilities of some myositis and neuritis involving the lower extremities. Studies along the lines of etiology finally bring us to two possible conditions, namely, a syphilitic myelitis, and a septic myelitis. The course of the onset in the illness of our patient is observed most frequently in several of the septic myelitis cases, being more prolonged in syphilis. We have an overwhelming amount of clinical data suggesting a luetic etiology. Therefore, without hesitation I shall make a diagnosis of a syphilitic myelitis.

The treatment outlined and which has been followed to the present time, I sense would not have the approval of some of my present day colleagues. Nevertheless the result in this case justifies the course pursued. Some of the improvement may be attributed to the spinal drainage, rest and general care, but I believe the bulk of the credit should be given the sodium iodide. The patient was started on 90 grains of sodium iodide in twenty-four hours. The dosage was increased eventually to 1140 grains a day. This may be considered an heroic dose, but the patient tolerated it quite well.

This man now gets about quite well. In fact no abnormality is noted in his gait. He is capable of doing a considerable amount of work. Therefore, on the seventieth day of his hospitalization, he is about ready to be discharged. However, he has been admonished relative to the necessity of taking future courses of anti-syphilitic medication. I would suggest that soon he be given a course of mercurial treatment. It will be necessary to choose between inunctions, the intra-muscular, the oral, or the intra-venous route. Sociological factors may enter into the choice. Later, a course of arsphenamine may be considered. Tryparsamide at this early stage is not of value. Your attention is called to the fact that the initial lesion occurred only about

five months ago. The patient also will be instructed relative to his work and general hygiene. This may be considered of much importance.

The frequency of the early involvement of the leptomeninges in secondary or tertiary syphilis is appreciated by many of the modern medical men. The possibility of an early luetic myelitis is not so well known. Perhaps it occurs more frequently unrecognized. The late and metaluetic types such as tabes are encountered much more frequently, diagnosed more readily and better understood.

Finally I wish to say a few words in behalf of iodide therapy in the treatment of syphilitic diseases of the central nervous system. The great value of some of the newer arsenical preparations is not underestimated. It might be stated that they have not qualified to the original fond hope of Ehrlich. There are some cases of neural syphilis in certain stages that may be selected for iodide therapy to the advantage of the patient. The patient and the time must depend upon good judgment of the clinician. It is necessary to use the proper dosage if radical results are desired, large doses ranging from 200 to 1000 grains. There are a few exceptions where the individual will not tolerate even moderate doses of the iodides.

Clinic of Dr. W. A. Myers,

Department of Medicine

CLINICAL, CHEMICAL AND PATHOLOGIC STUDY OF A CASE OF NEPHRITIS.

Gentlemen: Today, you will be interested I am sure, in the correlation of the clinical symptoms, blood chemical studies and the autopsy findings in a case of severe nephritis with terminal oliguria and uremia. We have recently studied this case through the kindness of Dr. Ralph Holbrook, with whom we saw the patient in her last illness. This very patient of whom we are speaking some of you may have seen—and if not this one your minds will undoubtedly revert to others similar in nature, as we briefly narrate the history pertinent to our discussion, present the studies on the metabolism, and have Dr. Wahl give a summary of the very instructive autopsy.

The history is of an Italian woman of 40 years, married at 13, and the mother of 13 children—the youngest 5 months old. She was treated for kidney trouble first three years ago. One year ago she began to have

nocturia, three to four times a night and had renal trouble in a recent pregnancy which became much worse after the delivery, since when, hematuria has been present. Vomiting has been present for the past month. Ten days ago she was first under hospital care, but has been at her home for the last three days. For the last week she has had evidences of renal intoxication—drowsiness, muscular twitching, frequent involuntary watery bowel movements, and enters the hospital with these symptoms. For several days previous she had a relative suppression of urine.

In the past she had frequent severe attacks of tonsillitis, and was admitted recently in another hospital with sore throat and marked cervical adenopathy, acute nephritis, hyper tension 230 to 240 (systolic) blood pressure, and nitrogenous retention evidenced by reports of blood urea nitrogen of 41 milligrams per 100 cc of blood, (normal 10 to 15); and a creatinine of 3.1 which is abnormally high.

Briefly, the physical examination was that of a short chubby woman in dorsal decubitus, with a typically renal, pale, puffy face and slightly edematous feet. There was no paralysis or paresis. Pupils pinpoint, optic discs somewhat hazy, arteries pulsating and a few retinal hemorrhages were present. Cardiac findings of a hypertension only, lungs negative, cervical glands palpable, and tonsils and pharynx inflamed, while the tongue was coated dark brown. Abdomen and feet were essentially negative with the exception of the edema mentioned above. The mental state was markedly depressed on entrance but gained clearness with treatment until the last comatose state developed on the fifth day in the hospital.

The course of the illness was an initial rally then a gradual relapse in spite of all treatment. The pulse ranged around 108 to 120 up to the last, gradually growing weaker as the blood pressure fell from day to day from 210 systolic to 148 shortly before death. The temperature on entrance of 99.4° F. ran about 101° up to 36 hours before death when it rose to 104 and 105 by axillary tests. The respirations were not increased early, but late took on a Cheyne-Stokes type and were increased. There was no vomiting while in the hospital. Watery involuntaries occurred from first to last. Sweats were produced by pilocarpine and occurred spontaneously. In the entire five days in the hospital she excreted 285 cc. of urine, by catheter entirely. Every precaution was taken to prevent unrecognized

passage of urine, by frequent catheterizations, and the nurses failed to find in the cotton packed about the vulva and urethra any evidence of urinary excretion.

Without discussion in detail the following pertinent questions must arise in your mind

First: What is the causal relation of tonsillitis to nephritis?—Certainly from the history that relation is more than a possibility.

Second: How can a patient live with such a high grade renal insufficiency? In five days this patient passed approximately one fourth of her normal daily output of urine, or stated otherwise, she passed on an average for each day approximately one-twentieth as much urine as she would normally. The duration of life in such a crisis has been explained on the hypothesis of vicarious elimination. That compensatory elimination may occur thru vomiting, diarrhea, sweating and through the breath, has been generally accepted and is the basis of classical therapy especially by emetics, hydragogue cathartics and diaphoretics, when renal insufficiency of high grade exists. Vomiting, while noted for a month preceding this hospitalization, did not occur according to the record during the last days of illness. It may have been that the diaphoresis which was marked, and encouraged by pilocarpine and hot packs, may have carried off nitrogen in quantity. Von Noorden believes as much as three grams may be so eliminated daily. Furthermore the watery continuous involuntaries may have been nature's method of elimination of nitrogen thru the bowel. Von Noorden believes as much as eight grams of nitrogen may be so eliminated, and the presence of ulcers and especially colitis in uremic cases may be the result of bathing the bowel with concentrated nitrogenous products. It is a matter of interest that the interne has recorded that the breath had a "uriniferous odor," but I could never honestly confess to such a detection.

It is worthy of note that the stomach content in this case on two occasions showed no concentration above the blood urea. On September 5th, the patient had a blood concentration of 98 mg. per 100 cc. and stomach content concentration of only 15 mg. and on the seventh these were respectively 130 and 29 mg. per 100 cc. This is of more interest because Charcot felt that gastric nitrogen excretion may have been a very important factor in detoxication in anuria.

We will place on the board here the very interesting urinary and blood chemistry studies, which are, as you will see, quite typical of renal insufficiency ending in uremia:

have been in order. Excellent x-rays were negative for stone. Sometimes blood clots form, become inspissated or organized in the ureters and cause occlusion,—such cases are reported in the literature. For such,

Date	Urine Catheterized							Blood							Serum
	c.c. in 24 hr.	Alb.	Costs	R.B.C.	W.B.C.	Color	Hb	R.B.C.	W.B.C.	N.P.N.	Urea	Creati- nine	Uric Acid	Glyce- mia		CO_{2}
* 8-23-25												41	3.1	190	
+ 9-2-25	90	4+	none report- ed	4+	-	cherry									
9-3-25	0														
9-4-25	15	4+	none report- ed	-	4+	Brown	24	1,600- 000	26,800	155	98	5.7		153	27
9-5-25	60			-											
9-6-25	90	4+	none seen	-	4+	Turbid									
9-7-25	30	4+	none seen		4+	Turbid				260	130	8.05		190	30
Total in 5 days	285														

* At K.C. General Hospital

+ St. Mary's Hospital

An analysis of the blood chemical findings in the case is interesting. We said above that the patient should have passed approximately 20 times as much urine in the five days as she actually passed. A study of the non-protein and urea nitrogen of the blood as recorded here, indicates on the day of her death that these were concentrated approximately ten times their normal. It may be well to look carefully into pathology associated with the diarrhoea for evidence of nitrogenous elimination.

Third: What course should be taken in treatment of such a case of oliguria? There is a choice between conservative measures of medical care or surgical intervention. Caulk states approximately 65% of anurias are due to calculi,—if such were present here catheterization of the ureters would

catheterization of ureters may remove the block and initiate urinary secretion. Such a possibility existed here since the urine seemed after the first day to be strained of casts and red blood cells. It was the opinion of consultants here, however, that this was not an obstructive oliguria but with a history of tonsillitis, recurrent and recent, that this was a true renal insufficiency. The marked acidosis registered by a CO₂ combining power of the blood serum was unsuccessfully combated by sodium bicarbonate by mouth.

Surgeons at times recommend decapsulation of the kidney for nephritis. Cases are reported with such treatment ending favorably, but the consensus of opinion does not favor the operation generally, and we did not here. Let us see what Dr. Wahl has to tell us about the autopsy findings.

Dr. Wahl.—“Grossly, the two most interesting findings in this material involve the kidneys and the lower end of the gastrointestinal tract. The kidneys, as you will

note, are unusually large. They are soft and flabby. The capsule strips off readily leaving a congested surface showing a few small petechial hemorrhages. The organ cuts with resistance and the cortex and the medulla are indistinct. The pelvis also shows some congestion and a few small submucous hemorrhages. Both kidneys present the same condition.

"The other finding of even more interest is the extensive ulcerative lesions involving the colon throughout its entire extent. These ulcers are large, superficial, irregular in shape and often anastomose with each other, frequently leaving islands of inflamed mucosa. Some of these ulcers are covered with fibrinous exudate which is in some places somewhat adherent. The base of the ulcer is often necrotic. There are no overhanging edges. At no place do the ulcers penetrate the muscularis. There is no induration about the edges or bases of the ulcers. There is some edema in the tissues about the ulcers. In some places the ulcers present a rather worm eaten appearance.

"The main findings on examination with the microscope involve the same organs that were of particular interest in the gross, the other organs presenting nothing of exceptional interest.

The kidneys show almost complete destruction of the parenchymatous elements in the cortex. The convoluted tubules are broken down, the epithelial cells are disintegrated and many of them are necrotic.

The convoluted tubules seem to be reduced in number. The glomeruli present a variable appearance, some of them are necrotic, others are thrombosed and some are infiltrated with pus cells and show various degrees of disintegration. There are others that show an increase in fibrous tissue. Hyaline casts are present in large numbers in the collecting tubules and loops of Henle. The stroma is increased in amount throughout the entire cortex and shows a marked leukocytic infiltration. There is marked congestion and a few small hemorrhages. The picture is that of an acute nephritis superimposed upon a chronic diffuse nephritis.

The other microscopic picture of unusual interest is the change in the large intestine. The serosa is thickened, leukocytes are scattered throughout the wall and there is marked edema of the submucosa. The ulceration does not extend entirely through the mucosa. In places the mucosa is necrotic. The leukocytic infiltration is not

striking. The ulcers are superficial and there is no suggestion of a bottle shaped character. No parasites such as amoebae could be found.

The finding of an ulcerative and membranous colitis with this severe kidney lesion, associated with the clinical picture of an anuria, suggests the interesting relationship that as a result of the failure of the kidney to excrete the toxic waste products of the body, the large intestine became one of the compensatory organs for the excretion of these products and thus became exposed to more toxic material than is usual, resulting in the extensive diffuse lesions found in this autopsy.

The association of advanced destructive kidney lesions with an ulcerative colitis is not a very uncommon one and adds weight to the opinion that the large intestine may serve in a compensatory manner as an excretory organ when the kidney fails to carry on its proper function. If this is true, that the gastro-intestinal tract may excrete nitrogenous waste products of the body, we have an explanation for those rather unusual cases of complete anuria without as serious results as would be expected.

Dr. Myers: There are some rather firm clots in the pelvis of the kidney. Do you think they could have obstructed the urinary flow?

Dr. Wahl: No, I believe the nephritis alone could explain the oliguria and resulting nitrogen retention.

— R —

What Constitutes a Satisfactory Drug?

A good summary of the requirements for a drug that can be considered a satisfactory therapeutic agent has been compiled by W. G. Christiansen of the Medical School of Harvard University. The first dictum is that the essential therapeutic dose should be far below the toxic dose. Ease of administration is extremely advantageous. Stability is a quality of great value. Drugs that are readily soluble and are rapidly absorbed are to be preferred. Drugs for injection should not only be soluble, but should withstand sterilization and should not injure the tissues. To act efficiently, the substance should not be excreted or destroyed in the body before it has had time to act on the infective agent, nor should it be excreted so slowly that cumulation in the internal organs gives rise to symptoms of poisoning. Finally, tolerance to the drug should not be readily developed by the parasite against which the drug is to be used. (*Jour. A. M. A.*, Sept. 19, 1925, p. 902.)

THE JOURNAL

of the

Kansas Medical Society

W. E. McVEY, M.D. - - Editor

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CREDULITY, THEIRS AND OURS

One need not marvel at the credulity the people manifest in regard to all kinds of fake remedies and mystery methods of healing. Most of us were raised that way.

The boy who sat for hours rubbing with an old bone the cumbersome and unsightly wart on his hand, repeating the jargon of the witch doctor and watching with patient faith for the excrescence to disappear, will carry with him into his adult life a certain amount of credulity. The boy who carried a buckeye in his pocket to keep off rheumatism, and who never was without at least one luck charm, will never entirely free himself from superstition. The boy who has heard the frequently repeated tales of miraculous cures, who has heard his grandfather tell how, when John was sick with pneumonia and every one had given him up, he, the grandfather, went out and killed a black cat, skinned it and wrapped the hot, dripping pelt about John's chest, and in a few minutes the black hairs stiffened up and stood straight, each one of them giving off a crackling magnetic spark as the disease passed out of John's chest and until the cure was completed; the boy who has heard Uncle Chet, the blacksmith, tell, a hundred times or more, how Bill Hilly was saved

from bleeding to death when he cut his foot with an ax, how, he, the blacksmith, went into the timber and drove wedges into a log until the bleeding stopped; the boy whose early intellectual diet consisted largely of these and similar stories of the hazards of life and the miraculous rescues of the unfortunate, may have, in his later years, paraded his skepticism but found a certain appeal in the mysterious, the magical, or at least something that exercises his faith.

The people have not yet grown away from the old time medical mythology, nor are they likely to forego the pleasures and thrills of superstition, or neglect an opportunity to declare their faith in some hocus pocus, especially if its pretensions include the healing of disease, until fairy tales are banished from the nursery.

Deep mystery makes a stronger appeal to the average human being than does superficial knowledge and will continue to do so, so long as the child's imagination is stimulated and cultivated and its reason retarded.

To have had an operation of some kind is an asset to the modest entertainer, to have had an operation requiring the patient to be two hours under the anaesthetic is a superior asset and entitles the sufferer, or beneficiary as the case may be, to a certain amount of recognition, but to have been miraculously healed of some real and indescribable, or imaginary ailment is the superlative asset and assures the favored one of the envy of all her friends.

In these contests in the recital of personal experiences the imagination mounts and in the realms of fancy there is no limit to the surgical feats or miraculous interventions that may have been required to restore the afflicted one to health and happiness. To read a few of the experiences that are published, for instance, in the Christian Science Sentinel, would be a revelation to Grandfather and Uncle Chet. Their cures were plainly the result of material causes and they probably never contemplated such a thing as the intervention of mind or spirit in the healing process. Even Renig Ade's Aunt Sally would have sniffed a little at the

account of a perfectly "harmonious" accouchement, accompanied with a "tranquil, peaceful, pure and grateful uplift," that was conducted by absent treatment.

To read but a few such experiences is sufficient to convince one that the people of today are quite as credulous as were those who believed that a black catskin poultice would cure pneumonia, or that a severe hemorrhage could be checked by driving wedges in a log several miles distant—a sort of absent treatment as it were.

But credulity is not entirely an attribute of the laity. While we criticize the people for the readiness with which they accept the theories and teaching of unscientific healers, we are ourselves too ready to accept the carelessly reported results of some new method of treatment. It has not been very many years since, on the strength of the report by some prominent clinician on a series of cases of pneumonia cured by large doses of quinine, a great many physicians gave their pneumonia patients thirty, fifty and sixty grains every three or four hours—until they died, or too many of them did. A few years later some one reported a series of a hundred cases of pneumonia, all cured with digitalis, and a very plausible theory of its specific action led hundreds of practitioners to adopt that treatment—for a time, until it proved to be no better than any of the other much vaunted cures for that disease.

Instances of the credulity of the profession could be interminably enumerated and they will continue to multiply until fairy stories have been banished from the medical press and until the too active imagination of the clinician has been retarded and his reason stimulated. The contest for priority in the announcement of some new etiology or some new therapeutic effect too frequently leads to premature conclusions from which the profession and the people suffer.

ARE YOU FOR THE SCHOOL?

At the annual meeting of our society in 1888, Chancellor Lippincott discussed the

advisability of establishing a medical school in connection with the University.

The university was at this time giving to students who desired a very satisfactory first year in medicine, at least it secured for those who completed it a full year of credit in Chicago, Cincinnati and St. Louis.

The Chancellor, from the investigations he had made and from his own observations of the progress of medical education, believed that there were certain very desirable advantages in having the fundamental branches taught in the university in connection with other departments, but he believed that the clinical instruction could be satisfactorily given only in the large cities. He said, "There seem to be two antagonistic requirements: 1. For scholastic reasons, a course in the fundamental branches of physiology, anatomy, chemistry, materia medica, etc., under professional instructors and under the general influence of the scientific and literary college; and 2, a professional training in clinic and hospital under the direction of eminent practicing physicians. The first of these may be had as well in a small town as in the center of a great population—must be had if at all, in the closest relationship with the college or university. The second can be found only in the great city."

Not long after this a course of two years in medicine was established in connection with the University at Lawrence and was conducted on the principles outlined by Chancellor Lippincott. When still later it seemed feasible to establish a full four-year course in medicine, these principles still governed and the clinical course was established where the hospital facilities and dispensary material of Kansas City would be available.

Nothing has occurred since that time either in connection with this school or in the experience of other medical schools to disprove the conclusion of the Chancellor that satisfactory clinical instructions could be given only in the larger cities.

In the further discussion of the subject another quotation from the Chancellor's ad-

dress is pertinent. "The success to be achieved must be a success not of mere numbers but of work. The success of no school is to be measured by the length of its roll call. Especially is this true in the professional schools."

From this point of view one may be sure that Chancellor Lippincott would congratulate the state of Kansas on the success of its medical school, for its work has been of the highest grade and its graduates have demonstrated the efficiency of its courses of instruction.

It has been grudgingly supported by the state, has been frequently and seriously handicapped by inadequate appropriations but has moved steadily on toward the ultimate fulfillment of the highest ambitions of the Kansas profession until now.

The present clinical school plant now represents an investment of more than eight hundred thousand dollars and yet a proposal to move this part of the school is urged with much persistence and a considerable force of numbers. Up to this time no satisfactory reasons have been stated. On the other hand it seems to have been conceded, at least up to this time, that a purely didactic course of instructions, such as could be given at Lawrence, does not adequately prepare a student for the practice of medicine.

Let another quotation from the Chancellor's address suggest one of the most important factors in the failure of the school to receive the appropriations from the state it deserved. He said, "The State University under the present management does not wish to add a medical college to its work unless it is reasonably certain to have from the start, and hold throughout, the confidence and support of the medical profession of the state."

Whether or not the school had the confidence and the support of the medical profession of the state it is unfortunately true that during a considerable part of its existence it failed to maintain that support, but not through any fault of the profession. During the past ten years, however, the

school seems to have regained to a very large extent this support. Seems is the proper word for the extent of its support will be definitely known at the end of the next fifteen months when the state legislature is again in session.

—R—

Meeting of Judicial Council

The Judicial Council of the American Association met in Chicago, September 21. A large amount of business was transacted by the council, most of it pertaining to questions submitted by individual physicians and by officers of medical societies.

A number of communications submitted to the council dealt with the establishment of hospital associations, organized for the purpose of securing hospital and medical service at rates considerably below the fees ordinarily in effect. Other communications dealt with the questions of ethics involved in the solicitation of patients through the medium of so-called hospital associations. The judicial council held that the Principles of Medical Ethics are reasonably specific with respect to this matter in that Section 4, Chapter II, provides that "solicitation of patients by physicians as individuals, or collectively in groups by whatsoever name these may be called, or by institutions or organizations" is unprofessional.

To meet specific demands that the terms "contract practice" and "sciences allied to medicine" be defined, the council adopted the following definitions:

CONTRACT PRACTICE.

By the term "contract practice," as applied to medicine, is meant the carrying out of an agreement between a physician or group of physicians, as principles or agents, and a corporation, organization or individual, to furnish partial or full medical services to a group or class of individuals for a definite sum or for a fixed rate per capita.

SCIENCE ALLIED TO MEDICINE.

By the term "allied sciences," as applied to medicine, is meant those subdivisions of general science that are held by teaching institutions of standing and reputation conferring the degree of Doctor of Medicine to have a place in the professional education and training of a physician.—*Jour. A. M.* A., Sept. 26, 1925.

CHIPS

It is claimed that there is a definite relation between pulse pressure and basal metabolism, and that a pulse pressure of over forty indicates a basal metabolism rate above normal.

The Oregon supreme court recently decided that pneumonia resulting from accidental injury to a leg was compensable under the workmen's compensation act.

It is well to bear in mind that syphilitic gummata do, though rarely, occur in the stomach, and that they may lead to hemorrhage and perforation. Rumpel reported some cases of this kind that he had operated on to the Berlin Surgical society. The diagnosis is difficult, but he suggests that when symptoms of gastric ulcer are present without increase of gastric acid, syphilitic ulcer might be suggested. In two of his cases a growth like cancer was found which on microscopical examination proved to be gumma.

According to information given out from the office of Surgeon General Cumming, the death rate in the United States for the first seven months of this year will be lower than the average for the past five years. Fewer cases of diphtheria have been reported than for the same period last year. More than twice as many cases of infantile paralysis have been reported for eight weeks than for the same period last year. There has been an increase of 43 per cent in cases of typhoid reported this year.

Insanity was responsible for twenty-four per cent of the approved total and permanent disability claims allowed Prudential policyholders during the last five years, according to an analysis of claims for disability benefits. It ranked only second to tuberculosis, which was the cause of total disability in 35 per cent of the cases.

The administration of normal salt solution in cases of dehydration following operations is contra-indicated, according to Lurz and Rupp, who report their experimental findings in *Munchener Medizinische Wochenschrift*, May, '25. They found that within forty-eight hours after operation the body lost from one to two and one-half liters of water and that salt was not eliminated in the proportion of 8 parts to 1,000 parts of water, which is the ratio of salt and water in the body. There is therefore an excess of salt in the body in these cases and this excess is increased when salt solutions are

administered. Salt free solutions answer the requirements, diminish the excess of salt in the body, and relieve the thirst of the patients.

The use of endocrine substances, especially the extracts of the organs of internal secretion, in the treatment of various conditions is largely empirical. While some of the extracts have definite therapeutic action, in most instances there is insufficient evidence that such action corresponds with the physiologic action of the organs from which the extract is derived. It is probable that such extracts do not contain the internal secretion of the organ. Doubt has been expressed that the therapeutic action of adrenalin is the same as the physiologic affect of the adrenal glands for, it is claimed, the extirpation of these glands does not immediately lower the blood pressure. It may be well, however, to bear in mind that much of our therapy that we now regard as rational and scientific had its origin in empiricism.

The regulations governing the collection of income tax in Germany are more liberal toward physicians than the regulations in this country. The German High Court has decided that every expense which served to keep a medical man abreast with new scientific research and to increase his knowledge in order to apply new methods of treatment may be deducted, such as subscriptions to medical journals, membership in medical societies, *travel expenses to medical meetings, post graduate courses*, library maintenance, office rent, help, automobile expense, etc. There is no good reason why expenses incident to attending medical meetings and the expenses of post graduate courses should not be deducted in this country unless the commissioner is under the impression that these are vacation indulgences. If physicians would express their minds freely to the representatives and senators it is not unlikely that these regulations might be changed.

Leake and Pratt reported the results of experiments on the treatment of septicemia with gentian violet and mercurochrome in the *Journal of the American Medical Association*, September 19, and their conclusions deserve very careful consideration. While admitting that in the treatment of septicemia these drugs may be considered as valuable adjuncts, they call attention to the fact that recoveries with other treatment may be just as startling. They conclude that when injected in safe doses gentian

violet and mercurochrome do not accomplish a *therapia sterilisans magna*; that large doses of either drug injected in the presence of an overwhelming infection may hasten death; either drug will exert a temporary bacteriostatic action in the blood stream. The ultimate benefit from this retardation will depend upon the reactive powers of the patient.

An intravenous injection of hypertonic glucose solution to drain the tissues was used by Ferdinand Herb in certain cases of syphilis that were resistant to treatment, on the theory that the resistance is due to different reactions in the tissues; cellular reaction disposing of the *treponemata*, while the non-cellular does not and the developing colonies are surrounded with an edematous fluid that protects the *treponemata*. (Illinois Medical Journal, July.) He recommends its use if the central nervous system is involved, in provocative injections, and in the treatment of primary syphilis. Thirty mls of a 50 per cent solution containing fifteen grams of chemically pure anhydrous glucose are used. No bad effects have been observed. The drainage of the tissues continues for twenty hours although the glucose disappears from the blood in thirty minutes. The treatment should be supported by the proper administration of alkalies in order to prevent the local acidosis which seems to be the cause of the edematous infiltration.

At the last annual meeting of the British Medical Association the subject of hyperpiesia was very thoroughly discussed, as reported in the *Lancet* of August 15. The discussion was directed particularly toward the cause of high systolic pressures in the young, an examination of 650 school children having shown that eight per cent had a systolic pressure of over 130 mm. Hg. There were many and various opinions on this point. Lord Dawson held the view that hyperpiesia had its chief origin in a habit of body or mind. Prof E. H. Starling called attention to the importance of the blood supply to the vasomotor system in the medulla. A raising of the blood pressure in the circle of Willis is compensated for by lowering the blood pressure elsewhere, and vice versa. McCrea mentioned as possible causes, organic diseases and infections, early renal changes, and endocrine influences. Shaw believed the main origin of hyperpiesia was toxic, but infective poisons were depressor in their action. Evans called attention to the fact that hypertension and

vascular disease were not necessarily accompaniments of renal disease. Dr. Stacy Wilson called attention to the varying difference between estimations of blood pressure made by the tactile and auscultatory methods. In one case the auscultatory method gave the higher reading, in another the tactile.

—R—

A Country Doctor Defined

If you can set a fractured femur with a piece of string and a flat-iron and get as good results as the mechanical engineering staff of a city hospital at 10 per cent of their fee;

If you can drive through ten miles of mud to ease the little child of a dead beat;

If you can do a podalic version on the kitchen table of a farm house with husband holding legs and grandma giving chloroform;

If you can diagnose tonsillitis from diphtheria with a laboratory forty-eight hours away;

If you can pull the three-pronged fish-hook molar of the 250-pound hired man;

If you can maintain your equilibrium when the lordly specialist sneeringly refers to the general practitioner;

If you can change tires at 4 below at 4 a. m.;

If you can hold the chap with lumbago from taking back rubs for kidney trouble from the chiroprac;

Then, my boy, you are a Country Doctor.

H. W. DAVIS, M. D., Plains, Kansas.

—R—

Memories

BY THE PRODIGAL.

Self protection is the first law of nature. Self interest is its corollary.

Memory loves to dwell on personality—one's own personality in particular, which is commendable if not stressed too much.

In reading the "History of the Kansas Medical Society" in the August number of *The Journal* it touched memory in its hiding place. It was in 1881 that I joined the Kansas Medical Society. Of the then members there are few to answer roll call today. They have passed on to "The undiscovered country from whose bourne no traveler returns." It was customary up to and including 1882, at which time the practice was abandoned, for some member of the society to read a paper on some "moral topic" from

a medical standpoint. The late Dr. J. B. Hibben of Topeka read a paper entitled "Morality." He began his paper as follows: "I propose to approach this subject first, theologically, by examining into the real influence of religious belief upon public or private morals."

Dr. J. H. Stuart, of Lawrence, in his public address to the society in 1881, took for his topic, "The Immorality of the Soul."

At this meeting in 1881, memory visualizes to me the late Dr. W. L. Schenck of Osage City, arising in the meeting and in a dignified manner and tone of voice becoming the occasion and the subject, rap the immoral religious publications and offering in preamble and resolution the following, in substance:

"Whereas, many of the religious periodicals of the day flood their columns with the unblushing falsehoods of the vendors of secret remedies and patent medicines likely to create in the minds of medical men a disgust for religion. (It did.)

"Resolved, that we condemn the practice, by the religious periodicals, of sending, comingled with the truth and beauty of Christianity, the base and unblushing falsehoods of charlatanism."

It will be seen that there was a religious fibre interwoven in the woof of the thoughts of the members of the Kansas Medical Society that gave expression to higher ideals, even at that time, than those of the church as expressed in a majority of its religious papers. It may be that the background of the moral landscape was fringed by a coloring of self interest, but the coloring matter was all washed out by the milk of human kindness, in the constant effort of the medical profession to prevent disease, and in this way living and practicing the highest moral ideals, as suggested by the lowly Nazarine.

The president of the American Bar Association, some four years ago, in his annual address, in comparing the literary requirements of a medical student to those of a law student to enter the profession said, in substance, "the medical profession has set an educational standard for its students entering medical college and also to pass, before they can graduate, and for the practitioner in medicine to pass. Compared to this literary standard in medicine the requirement to enter the study of law is nil. In fact," said he, "there is no educational requirement for a student to begin the study of law."

But now, in California, a three-year

course in a standard literary college is required of a student before beginning the study of law. Hence our claim is that the medical profession has cleansed the moral atmosphere of the religious press, and stimulated the legal profession to a higher standard of literary requirements for the law student, and stepped law up on a higher level, as one of the learned professions.

—R—

Ergot for Hypodermic Use

Some of our most valuable drugs are dependent entirely upon the pharmaceutical manufacturer for their reliability. Take ergot as an example. It is not to be expected that all natural specimens will contain the same percentage of active principle, and experience has proved that they do not. The necessity of standardizing ergot preparations has long been apparent, but chemical methods were not available because of the complexity of the active principles. Once it was thought that ergotinic acid was the active principle, but now the less of this an ergot preparation contains the higher it is rated, other things being equal. The alkaloid ergotoxin is very important, but certain amounts of the amines, histamine and tyramine, must also be present.

Since, however, ergot has long been used in medicine for its effect upon the involuntary muscles, the idea occurred to Dr. Houghton, of Detroit, in 1895, that an ergot preparation might be tested by administering it to cocks and observing its effect upon the comb, the degree of bluing or blackening produced being taken as an indication of the physiologic action of the specimen. In 1898 this method was adopted by Parke, Davis & Co. as a standard method for assaying their commercial products of the drug. It is now generally recognized as the most practicable method of assay known.

It is sometimes desirable to administer ergot hypodermically, but the ordinary fluid extracts are not suitable for this purpose. To give a small dose double efficiency, a preparation is now available called Ergot Aseptic, each cubic centimeter of which is equivalent to two cubic centimeters of the official fluid extract. Further particulars are given in the Parke, Davis & Co. advertisement elsewhere in this issue.

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Spleen and Red Bone Marrow

The Council on Pharmacy and Chemistry published a preliminary report of recent work with a mixture of spleen and red bone marrow. At one time desiccated spleen and

a preparation of red bone marrow were described in New and Non-official Remedies. Later they were omitted because clinical experience with them had been disappointing. Recently, C. D. Leake and his collaborators have studied the effects of spleen and red bone marrow given separately and in combination. From their studies, these investigators conclude that a combination of spleen and red bone marrow is much more efficient than either spleen or red bone marrow alone. They conclude also that the administration of such a mixture has a beneficial effect on simple anemia, but is without effect on pernicious anemia. While the results do not permit a definite judgment, the council believes that they are sufficiently favorable to warrant a thorough investigation of the effects produced by this combination on cases of simple anemia. The council reports that Lehn and Fink, Inc., market Spleen and Bone Marrow Desiccated of declared composition, and that the Wilson Laboratories market a preparation under the proprietary name "Spleenmarrow," stated to be an extract of spleen and red bone marrow, but the method of preparation of which is not disclosed. (*Jour. A. M. A.*, Sept. 5, 1925, p. 744.)

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DEATHS

Dr. Harry Humfreville of Waterville, Kansas, died September 9th in a hospital in Kansas City where he was receiving treatment. He was born in Piqua, Ohio, in 1854. He graduated in Medicine from the Kentucky School of Medicine, Louisville, Ky., in 1875. In 1880 he located in Waterville, Kansas, where he continued in practice until his death. For many years he was local surgeon for the Missouri Pacific railroad. He always took an active interest in county, state and national medical societies.

Dr. Willis D. Storrs, Topeka, age 55, died in Rochester, Minn., October 5, of angina pectoris. Dr. Storrs was born in Kansas. He graduated from the Kansas Medical College in 1895 and has practiced medicine in Topeka since that time. He was a member of the Shawnee County Society.

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MEDICAL SCHOOL NOTES

The opening of school this fall marks a record year in attendance. There are 41 in the senior class, the largest in the history of the school. There are 35 in the junior class. This is the largest number of stu-

dents which can be accommodated with the present facilities.

The X-ray department has just completed the installation of entire new equipment. This is of the most modern type and adds greatly to the efficiency of the department.

Dr. Wahl has just completed an inventory of the medical school in Kansas City. His figures show that the value of the grounds, buildings and equipment is \$817,000.00.

The dispensary attendance has increased steadily in our new location. In August, 1924, one thousand five hundred and seventy-one patients registered at the Clinic, and in August, 1925, there were two thousand nine hundred and fifty-two, an increase of one thousand three hundred and eighty-one for this one month.

Dr. R. H. Major was a guest of honor at the Michigan State medical meeting held in Muskegon early in September. Dr. Major read a paper on Chronic Nephritis.

The class building in the old location has been repaired and repainted for the first time in 12 years. This should be of interest to the old grads who, no doubt, remember its condition in their day.

Dr. H. L. Church of Pittsburgh was a visitor recently at the medical school.

Dr. F. C. Helwig has been promoted to assistant professor of pathology.

There have been several new appointments, as follows: Dr. Caryl Ferris, assistant in pathology. Dr. Ferris also is pathologist at the Christian Church hospital. Dr. E. H. Thiessen, assistant in surgery. Dr. C. K. Smith, assistant in genito-urinary surgery. Dr. M. J. Owens, instructor in surgery.

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PERSONALS

Dr. A. J. Hetherington, formerly of Mayfield and a member of the Sumner County Society, is now located at Glenville, Minn.

Dr. W. S. Gooch, who has practiced at Mapleton for the last twenty-five years, has moved to Fort Scott, where he is located in the offices formerly occupied by Dr. J. D. Hunter.

Dr. J. B. Robinson has moved to Mapleton, where he has taken over the practice of Dr. Gooch.

Dr. George C. Mosher of Kansas City,

Mo., was elected president of the American Association of Obstetricians and Gynecologists at the annual meeting recently held at Hot Springs, Va.

Dr. H. L. Hawley has moved from Englewood, Clark county, to Hudson, Stafford county.

Dr. M. S. Gregory, formerly of Dighton, Kansas, is now located in Oklahoma City and is limiting his practice to nervous and mental diseases.

Dr. Florence Chapman has recently been appointed assistant physician at the Topeka State Hospital. Dr. Chapman has been connected with state hospital service in Nebraska and Missouri.

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Reducing the Surgical Risk in Gastro-Intestinal Conditions

Experimental results lead T. G. Orr and R. L. Haden, Kansas City, Kan. (*Jour. A. M. A.*, Sept. 12, 1925), to the conclusion that sodium chlorid has some protective value against the toxemia developed in high intestinal tract obstruction. Distilled water does not prolong life or return the blood chemistry to normal as does sodium chlorid. The sodium chlorid seems to be the essential factor in the treatment of the toxemia, and its estimation in the blood serves as an indicator of the degree of toxemia. It appears from experiments that there is always, to some extent, a depletion of the chlorids before protein destruction begins with a rise in the nonprotein elements of the blood. Just what the danger point is in the fall of the chlorids, has not been definitely determined. It probably varies in different individuals. Orr and Haden feel that a blood chlorid of 400 in intestinal obstruction should be a signal for the generous administration of sodium chlorid. Judging from their experimental studies and observations of patients, it is essential to administer sodium chlorid in acute intestinal obstruction before operation as well as after. The quantity of the salt necessary to return the blood chemical changes to normal can be determined only by blood studies. A diminution in chlorids is easily determined by their precipitation in the urine with silver nitrate solution and comparing with the normal. Orr and Haden have made a rough estimate that 1 gm. of sodium chlorid per kilogram of body weight should be given as an initial dose in every toxic patient. This is best given subcutaneously in 1 or 2 per cent solution or intra-

venously in 5 per cent solution. Surgical risks may be lessened by the preoperative use of plenty of salt, and lives saved by its careful administration until the toxemia of intestinal obstruction has disappeared.

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What Do Physicians Prescribe?

The impression seems to be prevalent, although without any definite evidence, that physicians are again tending to the prescribing of ready made formulas, and that the art of pharmacy is becoming less and less a necessity to modern medical practice. A survey made under the Commonwealth Fund is, therefore, interesting. One thousand prescriptions (one hundred from a state) were examined; 51.9 per cent contained only official ingredients; 29 per cent contained both official and nonofficial ingredients; 19.1 per cent contained only non-official ingredients. The study was extended, and 17,577 prescriptions were found to contain 40,454 ingredients of which but 10 per cent were proprietary. The study also indicated that the filling of prescriptions is not, as has been believed, largely a matter of transferring a proprietary or secret formula preparation from one container to another. The results of the investigation indicated that physicians are holding in a large measure to the ideals urged on them by their instructors and emphasized by the Council on Pharmacy and Chemistry. (*Jour. A. M. A.*, Sept. 5, 1925, p. 750.)

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The Depressor Substance in Hepatic Tissue

Attempts to lower the blood pressure through the administration of liver extracts have been reported. Obviously, the use of crude tissue extracts, however potent they may be, is attended with great danger. Protein effects, including a variety of anaphylactic manifestations are always threatening; furthermore, the tissues yield a diversity of potent products that should not be injected indiscriminately. It is gratifying to learn, therefore, that experiments indicate the constituent of the liver extract which affects blood pressure to be non-protein in character. According to the latest reports, the principle depresses the arterial tension and maintains it at subnormal levels for a long time. One cannot avoid the belief that progress in the possible control of clinical hypertension is imminent. (*Jour. A. M. A.*, Sept. 5, 1925, p. 750.)

Hematemesis: A Plea for Objective Methods of Diagnosis

Chevalier Jackson, Gabriel Tucker, Louis H. Clerf, Robert M. Lukens and William F. Moore, Philadelphia (*Journal A. M. A.*, Sept. 19, 1925), report on the examination of a series of 280 cases which illustrate the well known errors incident to inferential diagnosis as to the source of blood issuing from the mouth, and how a positive diagnosis can be reached in practically all cases in which the blood comes from the food passages proximally to the pyloric antrum, with all the certainty afforded by direct inspection and, in suitable cases, by biopsy. Vomited blood may come from any part of the air passages, upper or lower, as well as from the food passages. Inferential methods of determining the source of blood in hematemesis are subject to a large percentage of error. Objective examination of all accessible portions of the air and food passages should never be neglected. If examinations of the gums, mouth, nasal chambers, pharynx and larynx are negative and the roentgen ray does not definitely locate a lesion in the stomach, bronchoscopy or esophagoscopy, either or both as may be indicated, should be done to locate the source of the bleeding. Blood on a bougie does not indicate a lesion in the esophagus. It is an inferential, not an objective means, and is useless for the diagnosis as to the source of blood in hematemesis. The bougie can bring blood from normal mucosa. There is much truth in the saying of Trousseau that sooner or later all patients with esophageal stenosis die of the bougie. Blind bouginage for diagnosis is no safer today than in Trousseau's day; nobody can tell where the end of the bougie is going. Esophagoscopy is safe, because the esophagoscopist can see what is ahead of the tube mouth. He advances the tube when he sees a lumen; he does not push it through tissue, normal or abnormal. It is not claimed, however, that a man who has never looked through an esophagoscope before can telegraph for an instrument, do a safe esophagoscopy, and make a certain diagnosis, any more than he could look through a microscope for the first time in his life and make a definite histologic diagnosis. Untrained hands may make a false passage with the esophagoscope as well as with the urethroscope; but the mortality from esophageal trauma is very high as compared to urethral injury. Peptic ulcer of the esophagus is an overlooked cause of hematemesis. It can be

diagnosticated in no way other than by esophagoscopy. The cardinal rule in hematemesis with negative roentgen-ray findings should be: Follow the blood to its source by objective methods.

Thyroid Preparations

Reid Hunt has recently pointed out that dosage with thyroid is largely empiric. The labels on the commercial preparations are as a rule not very elucidating. Dosage expressed in terms of grains of fresh gland is about as rational as reference of the dosage of morphin to the fresh juice of the poppy. The iodine content of thyroid preparations has been made the basis for their pharmacologic evaluation, and the work of Hunt indicates that there is a close parallelism between the physiologic activity of thyroid preparations and their iodine content. So long as the laboratory workers can actually measure the comparative potency with considerable accuracy in relation to iodine content, physicians ought to be eager to grasp this easily determined index as a guide to therapy. There should no longer be justification for prescribing "thyroid tablets" indiscriminately, particularly when it is realized that one "tablet" may contain 2,500 times as much thyroid as another "tablet," the range which is shown to be possible. Very few of the thyroid preparations on the market comply with the U. S. Pharmacopeia Standard. If all physicians were to base the dosage in prescribing thyroid gland on the pharmacopeial product, known as "thyroideum siccum" and to assure themselves that the product which they prescribe contains a definite amount of dried thyroid gland, the present state of confusion would be relieved and thyroid therapy would be placed on a more rational basis. (*Jour. A. M. A.*, Sept. 26, 1925, p. 978.)

Disinfection of Houses

It is generally recognized by the more progressive health authorities that house fumigation as heretofore practiced is of almost no value in the prevention of the spread of disease. Many pathogenic germs have only a brief existence outside the body, while even the more resistant varieties are not found on the walls, or ceilings, or hiding in the curtains of a sick room. They are found on articles that have come in contact with the patient. The tubercle bacillus is among the more resistant of the disease germs, partly because of the presence of a

waxy substance in its cell wall and partly because in pulmonary tuberculosis it leaves the body inclosed in mucous matter which protects it from the action of sunlight and other germicidal agents. It is doubtful whether the usual fumigators will be of any value in destroying these germs. The only practical, reasonable and effective treatment for a house or room that has been occupied by a tuberculous patient, is a thorough cleansing with soap and water; mechanical removal of material likely to contain the germs is preferable to disinfection and fumigation. (*Jour. A. M. A.*, Sept. 12, 1925, p. 845.)

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Immunization Against Scarlet Fever

Probably the best estimate of immunization with scarlet fever toxin is contained in the following quotation from an article by George F. Dick and Gladys Henry Dick of the skin test for susceptibility to scarlet fever and the preventive immunization with scarlet fever streptococcus toxin: "The New York City Health Department has employed scarlet fever toxin in preventive immunization on a large scale but has given it in doses too small completely to immunize a majority of susceptible persons. Zingher (The Dick Test in Normal Persons and in Acute and Convalescent Scarlet Fever Cases, *The Journal*, Aug. 9, 1924, p. 432), reported the use of 100, 250 and 500 skin test doses, a total of 850 skin test doses. Toxin put up in this inadequate dosage has been widely distributed by commercial firms." The report of the Dicks shows that when from 1,000 to 3,000 skin test doses were injected, only 14.3 per cent were completely immunized. When from 5,000 to 6,000 skin test doses were injected, 66 per cent were completely immunized. When from 10,000 to 12,500 skin test doses were injected, 91.8 per cent were completely immunized. Correct increase of dosage is all important. (*Jour. A. M. A.*, Sept. 19, 1925, p. 923.)

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Glycogenolytic Action of Insulin

E. F. Muller and W. F. Petersen, Chicago (*Jour. A. M. A.*, Sept. 12, 1925), present the importance of knowing how insulin acts when introduced into the mammalian body and what organs participate in the increased sugar metabolism. On administering like dosages of insulin subcutaneously, intravenously and intradermally, it was found that after two hours the intrader-

mally injected insulin exceeds the others in duration and intensity of effect. The conclusion has been reached that insulin acts differently, depending on whether or not it acts from a tissue depot such as an intradermal deposit, or after absorption into the circulation. From a tissue deposit, a dual effect is produced, a glycogenesis, the result of a nerve stimulus, and a glycolysis, the result of a hormone action. The nerve action is almost negligible after subcutaneous injection, and entirely lacking after intravenous injection. Thus, the intracutaneous method of administration of insulin in small amounts might seem a more physiologic method for clinical use in less severe cases, in that it avoids glycogenolysis.

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Does Roentgen Ray Modify the Course of Whooping Cough?

H. K. Faber and H. P. Struble, San Francisco (*Journal A. M. A.*, Sept. 12, 1925), report the results of a study based on equal numbers of control and test cases selected in such a manner as to afford if possible a just comparison between those treated and those not treated with the roentgen ray, and the remaining twenty-two were treated with antipyrin. Selection was made by alteration. The patients who did not receive roentgen-ray treatment made a better showing in practically all respects. The authors believe their figures afford strong evidence against the assumption that the roentgen ray has a curative or even beneficial physical effect in the treatment of whooping cough.

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Zinc Stearate Poisoning

The effects produced by the aspiration of zinc stearate consists in the production of an acute disturbance of the bronchi and lungs. The cases that have been reported can be divided into several types: 1. The fulminating variety composes one group, in which the onset is sudden and stormy, with rapid respiration and cyanosis. 2. In another group acute bronchial pneumonia develops. 3. In the third group of cases the course of the illness is brief. It has been shown experimentally that the inhalation of zinc stearate produces interstitial pneumonia and peribronchitis. Manufacturers should be prohibited from selling the powder in its present form; a self-closing container should be insisted on. (*Jour. A. M.*, A., Sept. 12, 1925, p. 844.)

The Use of Alcohol in Medical Practice

It is the opinion of Roger I. Lee, Boston, (*Journal A. M. A.*, Aug. 22, 1925), that alcohol is of no benefit as a stimulant in the acute infections. It is possible that alcohol may have some indirect beneficial effect on the metabolism, particularly with regard to fluids; but that does not seem to have been demonstrated clinically as yet. It is only in very exceptional cases that alcohol has any direct value as a food. Alcohol is beneficial in a wide variety of conditions on account of its pharmacologic effect in the production of euphoria. Its benefit is probably never directly life saving. In order to produce this effect, small doses of alcohol are probably sufficient. Lee says that alcohol should not be employed as a routine and should be employed only in individual cases in which the indications for its use are clear. When the purpose of the administration of the drug is kept in mind, there would be no more objection to the use of alcohol than to use opium or its derivatives, but the difficulties in the formation of habit are easily avoided when the treatment is individualized and the drug is administered on clear indications. There seems to be some evidence that in occasional cases the administration of alcohol to the state of mild but obvious intoxication may be beneficial. However, the ordinary indication for the use of alcohol is the creation of mild euphoria. The occasional cardiac patient with a large heart that no longer responds satisfactorily to digitalis and that hovers between compensation and decompensation with a variable amount of dyspnea often finds more comfort from alcohol judiciously given in moderate doses than from opiates, which are better reserved for a future period. In the sometimes inevitable discomforts of old age, as well as in the more sharply definite ailments of arteriosclerosis, alcohol occupies a high place in Lee's regard. Of course, alcohol does not in the slightest remedy the symptoms of the sensation of being ill. It may even be true that alcohol even in small doses may somewhat accelerate a progressive condition. However, if alcohol will enable the patient to eat more and to sleep better, not to mention to give freedom from bodily miseries, it would seem likely that the progressing process in such cases is generally not accelerated by the use of alcohol.

The American Association for Medico-Physical Research

This is another society catering to the twilight zone of professionalism. It recently held what is claimed to be its fourteenth annual convention. Little appears to have been heard of this organization until three years ago when the Albert Abrams fakery was at its zenith. In the meeting held that year, no small time was devoted to the "Electronic Reactions of Abrahams." The Medical Association for Medico-Physical Research was organized in 1911 by the outstanding quack of the century—Albert Abrams. It was originally known as the American Association for Spondylotherapy. From a study of the records of some of those whose names appear on the program of the society's annual meeting about to be held, it should not be difficult to judge the probable scientific status of the American Association for Medico-Physical Research. (*Jour. A. M. A.*, Sept. 19, 1925, p. 919.)

R

Digestive Enzyme Therapy on the Wane

Not so very many years ago, many physicians would have considered it a handicap to be deprived of the use of digestive enzymes in their daily prescribing. Even the most conscientious, while resisting the alluring color and pleasing taste of a widely advertised elixir claimed to contain pepsin, pancreatin and diastase, nevertheless gave pepsin in certain conditions, diastase in others and in cases of supposed pancreatin deficiency, pancreatin in the hope that the latter would safely reach its destination and have some action. Today a vast majority of clinicians make little or no use of digestive enzymes. The report of W. A. Bastedo on the use and utility of digestive enzymes summarizes the replies to a questionnaire submitted at the request of the Council on Pharmacy and Chemistry to the members of the American Gastroenterological Association and brings out forcibly that gastric ferments are considered of minor importance in therapeutics. The report fully justifies the estimate of the Council on Pharmacy and Chemistry which states in the chapter on digestive enzymes in New and Nonofficial Remedies that the utility or need for the internal administration of digestive enzymes is problematic. The Bastedo report is additional evidence of the untiring efforts of the Council to supply the medical profession with up-to-date and impartial information in regard to the actions and value of drugs. (*Jour. A. M. A.*, Sept. 19, 1925, p. 905.)

Bilateral Lumbar Sympathetic Neurectomy in the Treatment of Malignant Hypertension

According to Leonard G. Rowntree and Alfred W. Adson, Rochester, Minn. (*Journal A. M. A.*, Sept. 26, 1925), malignant hypertension affects persons in the prime of life, by preference men with a drive, who have attained success at the expense of their vascular systems. In some instances, such hypertension develops from a benign form, while in others it is malignant in type, almost from its inception; the latter type has constituted approximately 10 per cent of the total number of cases in our hospital experience. The cause of the disease is unknown; the course is stormy and rapid; the prognosis is extremely grave, and the medical treatment is entirely unsatisfactory. The clinical symptoms are: (1) marked and continuous elevation of systolic blood pressure and disproportionately high diastolic pressure; (2) cerebral manifestations—that is, excruciating dull headaches, intermittent or continuous in character, affecting as a rule the entire cranium, but centering especially in the occiput—insomnia, irritability and mental deterioration, changes in personality and at times apoplectic or epileptiform seizures; (3) loss of visual acuity secondary to neuroretinitis and consecutive to hypertensive changes in the retinal vessels, constriction, spasm, hemorrhages and so forth; (4) gastro-intestinal disturbances, especially epigastric discomfort, and nausea and vomiting; (5) cardiac changes, enlargement and at times dilatation with its accompanying train of symptoms; (6) involvement of kidney, nocturia, albuminuria, cylindruria and sometimes eventual renal insufficiency, and (7) asthenia, which may be the outstanding feature. Death results, in order of frequency, from cerebral vascular accidents, from cardiac failure and then from renal insufficiency. The course of the disease is rarely longer than two years, during which time the patient, as a rule, suffers intensely from headache, visual disturbances or manifestations of cardiorenal vascular disease, and is largely incapacitated for work. Treatment has included rest, relaxation, diversion, protection from strain, dietary regulations, hydrotherapy, and the administration of nerve sedatives and of vasodilator drugs. Once the disease is definitely established, treatment does not check its course; it is palliative rather than curative, retards progress somewhat, and in many instances makes the patient more

comfortable. Digitalis proves helpful during periods of cardiac decompensation. Removal of foci, especially of the tonsils, should be undertaken only if definitely indicated, because of the risk in such cases. It occurred to the authors that relative freedom from vascular spasm might be attained through the removal of the vasoconstrictor influence of the sympathetic nerves to the vessels of the leg. A patient with typical advanced malignant hypertension was subjected to bilateral lumbar sympathetic neurectomy (removal of the ganglions with the rami and all the branches and trunks of the second, third and fourth lumbar segments of the sympathetic chain) through a median abdominal incision. The patient's postoperative course was excellent. At first the subjective improvement was striking. The blood pressure level was distinctly lowered, at least for the two weeks following operation. The headaches, which had previously occasioned such great distress, entirely disappeared, and recurred but once during the first month and then only for a brief period. His vision improved markedly, the blind spots decreasing materially so that he read almost any print with comfort. No change was noted in volume or composition of the urine; certainly the efficiency of the kidney was in no way impaired. While the patient was getting up and about, the blood pressure gradually mounted. On one occasion, the headache and epigastric distress recurred for a day or so. He now responded well to nitrites and to the hypertension baths, in this respect exhibiting marked improvement over his former condition. A letter received four and one-half months after the operation expresses great satisfaction over the subjective improvement. Only on one occasion had he suffered from headache and epigastric distress. At six months he reports recurrence of hypertension (systolic blood pressure, 220, and diastolic, 120), but otherwise, is in good health.

—R—

Spinal Drainage; Value in the Treatment of Early Poliomyelitis

The data gathered by J. C. Montgomery and W. C. C. Cole, Detroit (*Journal A. M. A.*, Sept. 19, 1925), in twenty-six cases of poliomyelitis strongly suggest a possible beneficial effect on the outcome of the disease to be derived from early and repeated subarachnoid drainage. Vomiting was noted as the predominating initial symptom. Fever was the symptom complained of in thirteen cases. Headache was noted rela-

tively rarely, although at some time during the course of the disease it was present in 70 per cent. Pain was noted in only 54 per cent. Fever occurred in every instance, and vomiting was noted in 60 per cent of the cases. Some redness or injection of the tonsils or pharynx was noted in practically every instance and persisted from one to two weeks after the onset of the illness. This was a matter of varying intensity; in some cases there was only a mild redness and in others a severe angina, the hyperemic area extending up into the nasopharynx, where a grayish white exudate was almost invariably seen. Hyperesthesia was noted in every instance, although it too varied considerably in its intensity. Irritability was observed in about one-half the cases, although it was somewhat more constantly present in the early ones. Of the clinical signs, aside from hyperesthesia and pharyngitis, those most constantly present were neck rigidity and resistance to anterior flexion of the spine, these signs being found in 92 per cent of all cases, or in all but two. The reflexes were most unproductive of information in early cases. They were found normal, exaggerated, sluggish and absent. The most that could be learned from them was that only in rare instances were they normal, and in one or two instances a difference between the two sides of the face and neck was noted, and in one instance a definite punctate scarlatiniform eruption was present over the chest and back. This rash was so suggestive of scarlet fever that such a diagnosis was held probable, particularly in view of the severe angina that was present, and the absence of meningeal irritation. It was only when paralysis occurred that the true nature of the illness was recognized. Estimates of spinal fluid pressure were based on experience regarding rate of flow. While the pressure apparently varied in its intensity, nevertheless it was definitely increased in every instance except two, and these were beyond the acute stage. Similarly, the amount of fluid was increased in every instance except one. The degree of pleocytosis varied from 10 to 800. In some instances when puncture was performed in the extremely early stage, practically no increase was detectable. It was a frequent experience that the cell count was higher on the second, third and fourth days of meningeal invasion than on the first day, even in the face of definite improvement symptomatically. This led to the conclusion that in those instances in which an extremely large amount of spinal

fluid under great pressure is found, a cell count of 10 or 15 should be regarded, in a child at least, as a definite increase. It seems logical to assume that this low count at the first puncture may partially be explained on the basis of dilution. It has been the author's practice, as soon as a diagnosis of poliomyelitis was suspected, to perform a lumbar puncture. If this showed definite increase in pressure, with or without a pleocytosis, it was repeated at twelve or twenty-four hour intervals until the pressure had definitely subsided. This usually occurred in about three or four punctures, and it was the usual experience that after pressure had once subsided, it did not recur.

—R—

The American Academy of Proctology

Physicians have received letters inviting them to become charter members of the American Academy of Proctology of Evansville, Ind. The fee is ten dollars. The letters are signed W. G. French, Secretary-Treasurer. William Gale French holds a diploma from the Hahnemann Medical College and Hospital of Chicago, dated 1906. Medical directories indicate that Dr. French has changed addresses many times since he was graduated. In 1906 he was at Brook, Ind.; in 1909 at Greensburg, Ind.; in 1910, Indianapolis; in 1912, Kingsburg and La Porte, Ind.; from 1914 to 1916, inclusive, he was in Chicago. Other records show that French was in Detroit in 1912 and 1913; in Evansville, Ind., and Chicago in 1920; and back in Evansville in 1923. In 1907, William Gale French and three others incorporated the "Harvey Medical College and Hospital" of Chicago (not to be confused with the Harvey Medical College of Chicago). The William Gale French Harvey Medical College changed its name to Jackson University in 1908; to Jefferson University in 1909; in 1912 the charter was dissolved. This so-called medical college apparently never had any actual existence as a teaching institution. The name of French has repeatedly appeared in the newspapers because of his connection with questionable activities and enterprises. In 1921, French appears to have been connected with the "National Health Laboratories" which advertised an alleged cure for piles. In 1923, William Gale French announced that he was "going to run straight." One year later, an advertisement of the "National Health Laboratories" appeared and the indications are French was interested in this. (*Jour. A. M. A.*, Sept. 12, 1925, p. 842.)

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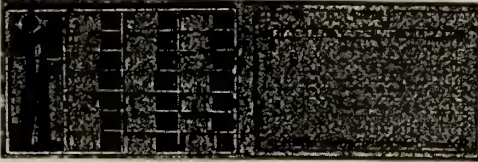
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Practical Points in the Treatment of Intestinal Obstruction.

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Read at the Annual Meeting of the Kansas Medical
Society at Topeka, May 6-7, 1925.

In the great mass of literature on intestinal obstruction in recent years, little has been suggested to reduce the mortality except early operation and enterostomy. Any slight therapeutic assistance in this dreaded condition, with a mortality which is usually 50%, will be very acceptable to all.

No one can intelligently treat acute intestinal obstruction without considering the treatment from at least five standpoints. These are (1) relief of mechanical obstruction, (2) dehydration, (3) starvation, (4) toxæmia, and (5) drainage of the obstructed gut. In most instances the mechanical obstruction must be removed surgically before the patient can be cured. In a certain small number the obstruction is of such a nature that it may release itself without operation, if the patient is otherwise properly treated. Such must not be hoped for to the extent that operation is delayed too long. To relieve the obstruction without consideration and treatment of the patient's general condition is the height of poor surgical judgment, and should not be done. Dehydration is always a factor and is especially important if vomiting has been persistent. This should be relieved as far as possible before operation by giving liquid under the skin, in the vein, or by rectum. Proctoclysis is the least dependable of the three methods and should be used as an adjunct to the other methods of administering water which are more accurate and reliable. Starvation is the least important of all because a patient can abstain from taking of food for several days without greatly lessening his chance of recovery. But to avoid too great a loss of strength, administration of food should not be too long postponed. In a vomiting patient the best food is glucose given by vein, under the skin or by rectum. It has been esti-

mated that man can utilize 0.8 to 0.9 grams of glucose per kilo (2½ lbs.) of body weight per hour. As high as 25% solution may be given in the vein if given slowly enough to avoid overflow in the urine. With the above estimation of the rate of assimilation of glucose as a guide, 250 cc. of a 25% solution may be given in the vein over a period of one hour with reasonable assurance that the patient will not lose it in the urine. A 3% glucose solution may be given under the skin or a 5% solution by rectum.

Two methods have been used to drain the upper intestinal tract proximal to the obstruction. Brown and Brown¹ and Matas² advocate the use of the duodenal tube as a method of treating post operative vomiting. High enterostomy is recommended by McKinnon³, Long⁴ and others as life-saving in intestinal obstruction. Just what enterostomy accomplishes has not yet been proven experimentally but clinicians are almost unanimous in their belief in its value. In the present state of our knowledge it is certainly to be recommended in serious cases.

We have been chiefly interested in the toxæmia of intestinal obstruction and the importance of treating this phase of the disease both before and after operation. Studies of the blood chemistry have been made both in patients and animals. These studies have led to certain therapeutic suggestions which are detailed below.

Three patients have been observed with marked toxic symptoms following gastroenterostomy⁵ which we have attributed to a temporary duodenal obstruction either at the stoma or at the ligament of Treitz by traction at this point. The blood in these cases showed evidence of body protein destruction manifested by a marked rise in the urea nitrogen and non-protein nitrogen in the blood and urine. Other striking changes in the blood were the fall in chlorides and rise in the carbon-dioxide combining power of the plasma. Coincident with the fall in chlorides in the blood there was almost a complete disappearance of the chlorides in the urine indicating a diminished excretion.

What becomes of the chlorides and to what use they have been put in the tox-

aemia became the chief interest to us. The increase of blood alkali in the form of sodium bicarbonate as shown by the rise in the carbon dioxide combining power may be due to a combination between the freed sodium ion of sodium chloride and the carbonic acid present in the blood. What becomes of the chlorine is yet a mystery. It is possible that some may be lost by vomiting as suggested by MacCallum and his co-workers,⁶ but certainly not all, since we have had patients with little or no vomiting and rabbits which cannot vomit, showing the typical chloride changes.

In a series of animal experiments we have studied the blood chemical changes in pyloric⁷ and high intestinal obstruction⁸ and the effect upon the toxæmia produced by the administration of sodium chloride⁹. Obstructions were produced at the pylorus by ligation with a tape and in the lower duodenum and upper jejunum by sectioning the gut and invaginating the cut ends with purse string sutures.

The blood and urine chemical changes found in these experimental obstructions were similar to those found in the gastro-enterostomies noted above. There was always a rise in the urea nitrogen and non-protein nitrogen, a rise in the carbon dioxide combining power of the plasma and a fall in the whole blood chlorides. Coincident with this there appeared in the urine an increase in the non-protein nitrogen and a marked decrease in the chlorides. It was noted that considerable fall in the blood chlorides occurred before the non-protein nitrogen elements began to rise. It seemed from this observation that the chlorides might in some way exhibit the protein destruction until a certain stage of exhaustion was reached.

To test the value of sodium chloride as a therapeutic agent in intestinal obstruction this salt was first given subcutaneously as a physiologic solution. Stronger solutions were later used as the stage of the blood chlorides seemed to indicate. Dogs with duodenal and upper jejunal obstructions were given 40 cc. of saline solution per kilo of body weight daily from the day of the obstruction and have been kept alive 26, 27, 28 and 30 days. During this time the blood chemistry remained within normal limits. Dogs with similar obstructions and no treatment died in an average of 4 or 5 days. Hartwell and Houget¹⁰ were able to keep dogs alive with saline solution for 3 weeks but attributed the benefit to the supply of water and not to the salt. In order to prove

that the salt is a factor in preventing early development of toxæmia and death we have used distilled water in the same manner and quantity as the salt solution. Dogs thus treated died as quickly as dogs with no treatment and in some instances we have the impression that they died in a shorter time than untreated dogs. The blood and urine chemistry showed the changes characteristic of no treatment. To further lend evidence to the protective value of sodium chloride we have permitted animals with high obstruction to develop toxæmia and then treated them with hypertonic salt solution. This lessened the quantity of water in the treatment and removed that factor as a direct effect upon the toxæmia. Animals thus treated showed a return of their blood and urine chemistry to within normal limits.

In a series of dogs we have tried to reproduce the intestinal obstruction much as it exists in high intestinal obstruction in man¹¹. In all of these animals the obstruction was made in the jejunum about twelve inches below the deodenum. Eight had obstructions at this point with a later lateral anastomosis after the development of toxæmia. These all died. Seven other dogs were obstructed in the same manner, permitted to become toxic and treated both before and after lateral anastomosis with two per cent salt solution subcutaneously. Five of the seven recovered. In the dogs that lived the blood chemistry returned to normal. These experiments, we believe, illustrate not only the value of sodium chloride as a protective agent but impress the importance of their administration both before and after relief of the obstruction.

Studies were made in dogs with enterostomies¹² in the upper jejunum below obstructions in which treatments were given directly into the intestine. To determine the effect of water alone 40 c. c. of distilled water per kilo of body weight were introduced daily directly into the jejunum. These animals died in two to eight days with the characteristic blood changes of intestinal obstruction. Dogs treated in the same manner with the same quantity of 1 and 2% sodium chloride solution lived from 17 to 30 days without chemical or clinical evidences of toxæmia. They died of complications such as distemper, peritonitis or from exhaustion.

We have studied clinical cases with both pyloric and intestinal obstructions¹³. These patients have shown the same blood changes as the animals. Some of them

have been treated with sodium chloride in varying strengths with excellent results. It will require observation of many clinical cases to determine any change in mortality rate.

What are the practical conclusions to be drawn from the above observations? Is it necessary to have repeated blood chemical analyses to properly treat acute intestinal obstruction? We believe that it is very desirable but not absolutely necessary. Since the chlorides in the urine decrease in direct proportion to the fall in blood chlorides an estimation of the urine chlorides is a good indication of their need in treatment. The chlorides may be precipitated by a silver nitrate solution and this precipitate compared to that of normal urine. This is only a rough qualitative test but certainly of value. The following suggestions are made for the treatment of acute intestinal obstruction. (1) In the very toxic patients at least 1 gram of sodium chloride per kilo of body weight (1 gram for each 2.2 lbs.) should be given as an initial dose. This is best given by a 2 or 3 percent subcutaneously and 5 per cent intravenously. With both methods the solutions should be given slowly. (2) In the severely toxic and dehydrated, treatment with salt solution should always be given before operation and continued immediately after operation. At least five liters of water should be given with the salt in the first 24 hours. (3) As a general guide to the treatment of intestinal obstruction the five factors to be remembered are, the mechanical obstruction, dehydration, starvation, toxæmia and drainage of the obstructed bowel.

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Glucose in the Vomiting of Pregnancy

WALTER H. WEIDLING, M. D., Topeka.

Read at the Annual Meeting of the Kansas Medical Society at Topeka, May 6-7, 1925.

The title of this paper might well be called "Further Observations of the Vomiting of Pregnancy," since in the last few years the literature has been quite full of the observations of different men interested in the subject. In January, 1924, Dr. Otto Schwartz of Washington University, St. Louis, read a paper before the Shawnee County Medical Society advocating the use of glucose solution intravenously to control and stop vomiting of pregnancy. Since that time glucose has been used in Topeka considerably for this purpose with gratifying results. And since the method is so simple and the results apparently so good I should like to review some of the literature again and give some brief case reports.

Every other woman who becomes pregnant experiences some nausea and vomiting as a result of pregnancy. Practitioners almost expect every woman to have some nausea and vomiting during early months. In fact, the condition is so common that a great many women may have nausea and vomiting even with loss of weight and lessening of urine output without seeking relief. They do not seek relief because of the common experience that so many women have some nausea and vomiting or because they know that the condition is usually better about the third month. This mistaken idea often results in a toxemia of pregnancy more advanced than should be, had such a patient consulted the physician at the outset of pregnancy. Williams once divided the cause of nausea and vomiting of pregnancy into reflex, neurotic and toxic, the reflex and neurotic types offering good prognosis and the toxic not so good. The first two types we need not discuss now because of the general belief that all nausea and vomiting of pregnancy is toxic and that acute yellow atrophy and pernicious vomiting are the same toxemia due to the same causes as the milder forms of vomiting but in much exaggerated form.

Ewing and Wolfe in 1907 by the examination of numerous cases, found that pregnancy disturbs metabolism resulting in a lowering of the urea nitrogen and an increase of undetermined amino acid nitrogen. This conclusion is strongly confirmed by the rapid restoration to the normal standard usually observed after delivery.

In 1910 Ewing made the statement that the only safe thing to do is to consider all cases as toxic. The pathogenesis of very early vomiting is complex but the evidence points to functional disturbances of the liver of metabolic origin as the essential factor.

The causes for metabolic changes are the cessation of the menses, influence on the nervous system resulting in endocrine imbalance, increased metabolic demands on the patient and sudden loss of adequate food supply. Slemons, working on the nutrition of the foetus found that foetal tissues synthesize their protein from material in the foetal blood which has been acquired by diffusion from the blood of the mother and that fats and lipoids do not cross the placenta but are almost certainly manufactured from carbohydrates in the body of the foetus.

Mottram reports in the *Journal of Physiology* in 1909 and 1914 that in ill-nourished pregnant animals the liver becomes overloaded with fat. He showed also the same conditions to a less degree in the starvation of animals for a few hours. He seemed to think the conditions analogous, and that probably morning sickness comes in the morning because of the short period of absence of food during the night—and that the real cause was lack of glycogen because lack of glycogen leads finally to fatty infiltration in the liver.

Two things should follow this view. First, that there should be an acetonuria with this condition and that feeding carbohydrates should better it. Acetonuria is found usually, but is a result and not a cause. The lack of glycogen then, seemed to be the cause, and the successes with carbohydrate feeding bears out this supposition.

Duncan and Harding, 1918, report seventy cases of vomiting of pregnancy with no therapeutic abortion, all of whom recovered, their method being feeding carbohydrates by mouth, by bowel and by sub-mammary injection.

Titus, Hoffman and Givens in the *Journal of A. M. A.*, 1920, state their belief that carbohydrate deficiency is usually the disturbing factor and believe so because the growing foetus requires a large amount of carbohydrate. Lockhead and Kramer found that the placenta stores glycogen until the foetal liver can function. The growing uterus demands glycogen. Thus the demand of glycogen by the foetus is an abrupt drain on the patient.

Pfluger has shown that glycogen disappears almost entirely during starvation and

that fat replaces it and eventually the glycogen-storing cells are destroyed. Titus, Hoffman and Givens improved Duncan's and Harding's technique by giving fifteen to twenty grams of glucose in two hundred fifty cc. of water intravenously. In 1922 in the *Lancet*, Harding of Toronto and Watson of Edinburgh reported one hundred thirty-five cases of nausea and vomiting treated by different men all using carbohydrate and report ninety-eight cures, twenty-five improvements and nine failures. That is, lactose by bowel, mouth and sub-mammary injection.

Corpus luteum we know has been used with varying success, but it does not work in all cases and probably not at all where there is much toxemia. Hirst has made three different reports on the effect of corpus luteum in the vomiting of pregnancy in the *Journal of the American Medical Association* but without conclusive results.

Lack of function of the thyroid has been blamed for toxemia of pregnancy but rarely can this be proven and rarely does the administration of thyroid improve the condition.

Dr. Schwartz and his associates at the Barnes Hospital in St. Louis believe that pernicious vomiting and toxemic vomiting are misnomers and class all of their cases of vomiting of pregnancy into moderate, mild and severe. Harding and Watson in the *Lancet* made the same classification previously,—mild, moderate and severe.

1. The severe type being where there is a constant nausea and vomiting.
2. Scanty and high-colored urine.
3. Marked dehydration and emaciation.
4. Slight elevation of temperature; thin and rapid pulse.
5. Restless or comatose.
6. Jaundice.

Doctor Paddock of Chicago in the *Journal of A.M.A.*, 1922, reports a case of vomiting of pregnancy taken into St. Luke's Hospital for a therapeutic abortion. The condition was so grave that the consultants decided they must in some way improve the patient's condition before the abortion could be performed with safety. A duodenal tube was inserted and ten per cent glucose and soda injected into the stomach. This was promptly vomited. The tube was passed again and after while reached the duodenum and glucose and soda were again

given. This time the patient did not vomit. The tube remained in place. Glucose and soda were given every few hours and the patient's improvement was so rapid and so marked that the abortion was not performed and recovery was uneventful.

In the Barnes Hospital not a therapeutic abortion for vomiting of pregnancy has been performed in over a year. Their mild cases are treated first, by rest in bed for twelve hours and no food; second, dry diet, given every two hours and a midnight lunch; third, fluids are given between periods of the dry diet. Luminal is the sedative of choice given, and five grams of sodium bromide in 60 cc. of starch solution by rectum two times daily if necessary.

The moderately severe types are treated the same except in addition, an Andrews nasal tube or a duodenal tube is passed and a ten per cent Karo corn syrup solution is given every two hours. The Andrews tube they have kept in as long as ten days and the duodenal tube for as long as fifty-five hours. Luminal is given in one-half grain doses every four to six hours.

In the severe types the treatment is the same excepting the glucose is given by rectum five per cent, 300 cc. every four hours. Luminal is given as necessary, and 500 to 1000 cc. of a ten or twenty per cent glucose solution is given two times per day intravenously.

Woodyatt of Chicago and Wilder of the Mayo clinic have demonstrated that glucose can be given eight-tenths gram per kilo body weight per hour without producing glycosuria. The fluid intake in severe cases should be three to four thousand cc. per twenty-four hours. Care must be given in the preparation of the solution when made from glucose; the solution must be clear and not brown or caramelized; it must be freshly prepared. It does not matter whether made with normal salt solution or not. It should be kept at body temperature, and injected slowly, one-half hour being required for every five hundred cc.

Insulin may also be used and such cases have already been reported. Thalheimer in the Journal of the American Medical Association in 1923 and 1924 reports cases where insulin has been given with a glucose solution. A safe margin is that not over one unit of insulin be given with each three grams of glucose injected. In the April number this year of Surgery, Gynecology & Obstetrics, Fisher and Mensing report the use of glucose intravenously in serious operative risks both before and after sur-

gical operations, giving 1000 cc. of a ten per cent solution using one hour for the injection and using one unit of insulin for each three grams of glucose injected. Their results seem particularly gratifying, especially in cases of starvation. What is the status of glucose among well known authorities now for the vomiting of pregnancy? Williams reports the use of 250 to 500 cc. of ten or twenty per cent solution of glucose intravenously as much as four times a day, but as yet places no great reliance upon it. In Kansas City, at the present time, one obstetrician believes Sippy's treatment for the vomiting of pregnancy superior to anything else and reports seventy per cent of cures by this method and only fifteen to twenty per cent by the use of glucose. Sippy had a treatment for the vomiting of pregnancy as well as for gastric ulcer. Dr. Potter of Buffalo who has one of the largest obstetrical practices in the country has never used glucose at all in the vomiting of pregnancy. I have gathered from Topeka during the past year some fifteen cases of vomiting of pregnancy treated by glucose intravenously. Three of these cases I know were brought into hospitals, primarily for therapeutic abortions.

I should like to make a few case reports that I have gathered from the hospitals and from physicians in the city showing the apparent beneficial effects of the glucose solution intravenously in cases of this type.

The first case—Dr. Beverly and Dr. Miller's case—is that of Mrs. L. W., age 31, first pregnancy. In the 7th month developed a severe vomiting. Diacetic acid, acetone and also a trace of albumin in the urine. Patient restless and nervous. Retained nothing by mouth. Was brought into the hospital March 21, with the idea of instituting labor. Glucose five per cent and soda were given by bowel together with morphine. On March 22, condition unchanged. March 23 same treatment; condition unchanged. On March 26, 270 cc. of five per cent glucose and soda three per cent were given intravenously. March 27, 150 cc. of glucose and soda given intravenously. March 28, 278 cc. of glucose and soda given. Patient improving; quantity of urine increased very much; no nausea. The urine still contained acetone and diacetic. Patient given gruel. March 31, 200 cc. glucose given intravenously. April 1, the acetone had disappeared; a small trace of the diacetic acid remained. Patient felt more comfortable; was able to

take toast, milk and fruit juices. April 3, vomited once. April 4, patient went home.

We have a case of Dr. Farley's and my own—Mrs. G. B., age 31; second pregnancy. Has one child five years of age. During first pregnancy was only sick four or five days and has always been well until present pregnancy. Last menstruation March 15. Became sick at once. Vomited practically everything, only a small amount of soda water being retained. Has had several different physicians and everything tried in the category for the vomiting of pregnancy, including glucose by bowel. I saw the patient first on May 24. Patient very thin, lips parched and dry, excessive saliva, tongue reddened; no icterus; skin flabby and brown tinged but not icteric; urine contained acetone; the output was small. Patient came into the hospital the 24th of May. She was given at once 380 cc. glucose five per cent intravenously, morphine one-sixteenth and Karo corn syrup one dram by mouth every four hours. The next day she was given sips of water and some malted milk. This she vomited. She was given veronal at night, which was retained. On the 26th she was given the corn syrup and veronal. Some of this was retained and some vomited. On the 31st she was given 240 cc. of a ten per cent solution of glucose intravenously. Patient on June 1 was hungry and desired food for the first time. She was given toast, tea, fruit juice. On the third day of June, patient did not vomit at all. On the 8th day of June, patient was up and about and was discharged. She had no further vomiting; her pregnancy continued uneventful.

We have the case of Mrs. B. W., my patient, and the only case of my own or others who has had any deleterious reaction following glucose intravenously. She was a young woman 27 years of age; one child one year ago; at the present time, pregnant two months. Since the beginning of this pregnancy has lost twenty pounds in weight; extreme nausea and lassitude; inability to sleep. Brought into the hospital May 29, given 250 cc. of five per cent glucose solution at once. May 30, felt better; took some dry diet. Insisted on going home. June first, went home. June third, re-entered the hospital after more severe vomiting and was given 300 cc. of ten per cent. This glucose solution was prepared from the sugar in the same way as we had used it before. This was given at 9:30 in the morning. And by 12:30 the patient had a temperature of 105, pulse 136, com-

plained of severe headache and was somewhat cyanotic. At 1:30 temperature 105, pulse almost uncountable, 160, and respiration 30. Patient complained of severe backache and it looked as though an abortion was imminent. By eight in the evening the temperature had returned to 100, pulse 120, respiration 20. The cause of this reaction I do not know how to explain. Suffice to say that we did not give this patient any more glucose intravenously but that that had been given, was sufficient; nausea and vomiting ceased and pregnancy went to term uneventfully.

I have another report, Dr. Righter's and Dr. Hall's patient, Mrs. M. B., pregnant three months; marked loss of weight, amount not known. She was brought into the hospital December 24. She was given soda and glucose by bowel. On the 26th she was given glucose 100 cc. of ten per cent solution intravenously. She was given this every day for six days. After which time she was given a dry diet and by the 8th of January was able to go home. Recovery uneventful.

The other cases are somewhat similar and range in between the cases mentioned as regards the amounts of glucose given. The first case of Doctor Beverly's and Doctor Miller's, being the case that received the greatest amount of glucose, received 1098 cc. According to authorities this would be for them a small amount. Yet in the cases we have here, it seems we have had some good results without giving any such great quantities at a time. Doctor Joss has had some cases in the home where he reports the giving of insulin along with the glucose with good results. This method is now quite generally used by surgeons in cases of bad operative risk and in cases of starvation.

In conclusion I would state that whether the present theory as to the cause of vomiting of pregnancy is weak or not, it seems that the lack of glycogen at least to date, has more ground than any other theory, and we cannot deny the great amount of data gathered that does prove that glucose does something that relieves the symptoms. Surely our few cases here are not all coincidences and cases that would have gotten well without the use of glucose, and therefore I would recommend it—not as a panacea, but as a simple method that has worked for us in the vomiting of pregnancy.

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The Differential Count in Acute Surgical Infections

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Read before the Cowley County Medical Society.

In the early history of the differential count, the high hopes of the medical profession were that the hematologists would, sooner or later, be able to show in the numerical relationship of the different white cells of the blood to one another something characteristic of most diseases and surgical infections. That this has not come true and that there is much in common about the differential count in the general run of diseases and pathological processes the physician or surgeon comes in contact with has long been known. So much have our hopes swung to the opposite extreme in the past few years that the differential count has seriously fallen into disuse in many of our hospitals and medical centers throughout the country.

In the next few years, however, I am sure that another change in the general attitude toward this important diagnostic aid, especially in acute surgical infections, will take place. Amidst the apparent general indifference that has existed for some time, individual men are more and more taking a renewed interest in working out the merits of the differential count from a different angle.

Hematologists are beginning to learn that while we have failed to find for the physician or surgeon a specific blood picture for the number of diseases and infectious processes he has hoped for, we are able to so classify diseases and infections according to type of differential count that, when taken together with history and physical findings he has all he really needs in the way of a specific basis to go by in the diagnostic question.

It long has been known that the leucocy-

toses that follow acute infections are not all of the same character and that they may represent an increase of the polymorphonuclear cells alone or they may represent an increase, to a greater or less extent, of all the leucocytes commonly present in the blood. This fact, by itself, of course has very little meaning; but it has been definitely established, and is especially confirmed in some of my own work¹ that there is a very definite constancy about the type of infections represented under a general leucocytosis as well as those represented under a strict increase of the polymorphonuclear cells.

Little thought probably has been given as yet as to just how this simple classification of the leucocytoses practically solves the diagnostic question for the surgeon in dealing with acute surgical infections. The explanation, however, is very simple: With all surgical infections in a single group, according to the differential count, the matter of a correct diagnosis frequently becomes an impossible problem to solve. If, however, we can by one stroke of the differential count eliminate half of the things the trouble might be, it can clearly be seen that the question as to the seat of the infection has become simplified to the same extent. In a practical sense, there is seldom an instance that through this division the skilled surgeon or clinician cannot instantly name the trouble.

The diseases and infectious processes, which, when uncomplicated, consistently give rise to a leucocytosis of the type of which the polymorphonuclear cells alone are increased may be set down as follows: *Acute appendicitis, peritonitis, strangulated hernia, intestinal obstruction, infection of the uterine cavity, ruptured ectopic, eclampsia, tetanus and acute acidosis from any cause.*

On the other hand those, which when uncomplicated, consistently give rise to a leucocytosis of which all the cells commonly present in the white count are more or less increased include the following: *Acute salpingitis and infection of the ovary, pyelitis, cystitis, infection of the prostate gland and other organs or parts of the male genitourinary tract, hepatic colic and practically every other acute infection of tissues outside of the abdominal cavity not mentioned in the previous classification.*

DIFFERENTIAL DIAGNOSIS

In the practical application of these facts, very few mistakes are met with, provided the physician or surgeon can be furnished

with the correct figures of the differential count, which should always be made so as to show the absolute number of all the cells per cmm instead of the percentage relationship. It must be remembered that it is the question of which cells are actually increased or decreased that is important and this cannot be determined to the sufficient extent of accuracy from the usual percentage scale given.¹

APPENDICITIS VERSUS ACUTE SALPINGITIS

If the question of diagnosis rests between acute appendicitis on one hand and salpingitis on the other, and the differential count clearly shows that the leucocytosis represents strictly a polymorphonuclear increase, it is reasonably safe to make a diagnosis of appendicitis. In a series of 25 consecutive cases of appendicitis showing either an absolute or a relative leucocytosis, this rule was not broken excepting in a few cases complicated with disease of the ovaries and fallopian tubes.² Since this series was obtained, the fact has been noted in many hundreds of cases that have come under my observation through my hospital connection.

On the other hand if the leucocytosis represents a clear cut increase of the small lymphocytes and the eosinophiles as well as the polymorphonuclear cells, it is equally safe to make a diagnosis of salpingitis. This rule has also been followed through many hundreds of cases, a few of which have also been previously published.²

APPENDICITIS VERSUS HEPATIC OR RENAL COLIC

Again if we have to deal with an obscure attack of hepatic or renal colic with pain and rigidity of the right side of such a nature as to bring in the question of a possible case of appendicitis, the presence of a large number of small lymphocytes in the differential count safely eliminates appendicitis. This having been ruled out, it usually can be readily settled as to whether the kidney or gallbladder is involved.

PELVIC ABSCESS VERSUS ACUTE INFECTION OF THE UTERINE CAVITY

This is another combination that frequently confronts the surgeon in the question of differential diagnosis and one that is not always easy to settle from the basis of obtainable history and clinical picture. Here again, however, we are dealing with two conditions of opposite classes according

to the differential count. Infection of the uterine cavity is very striking in its character of giving rise to a strict polymorphonuclear leucocytosis, which again is noted in the series published in the New York Medical Journal, constituting a small part of the number that have been studied.²

ACIDOSIS AND ECLAMPSIA

Right here it might be well to mention that in eclampsia, toxemia of pregnancy and acidosis from any source, the leucocytosis is strictly of the polymorphonuclear type and occasionally may become misleading in connection with surgical infections. As an illustration of this I will mention a case that came under my observation recently in my hospital work.

A young unmarried woman was brought in in a very nervous condition with intense headache, vomiting and with a temperature of 103° F. There was more or less diffused tenderness over the abdomen and some localized tenderness low down in the left iliac region. The leucocyte count was 25,000 representing entirely a polymorphonuclear increase. Examination of the urine revealed a highly toxic condition, showing a 100 degrees of acidity, a large amount of acetone and diacetic acid with a trace of albumen and a few casts. The clinical picture and laboratory findings pointed directly to a threatening toxemia of pregnancy, regardless of the obtainable history, and the treatment was immediately directed toward elimination and reducing the acidosis. In the course of this treatment the symptoms rapidly subsided and the patient left the hospital within a week from the time she entered.

About 3 weeks following, however, the patient was taken with another similar attack and I was called again to see the case. The laboratory findings coincided with those of the previous instance and it was plain she was again suffering with the same condition. A palpable mass, however, was located in the left lower iliac region this time and a surgical operation was performed, revealing the presence of a badly infected fallopian tube as the only thing to account for what appeared otherwise the identical picture of toxemia of pregnancy. It is plain in this case, that the acidosis was responsible for the blood picture and not the infected fallopian tube.

FAILING LEUCOCYTE RESPONSE

It must also be remembered that the class of infections associated with a strict poly-

morphonuclear leucocytosis in the early stage or the beginning of the process, may have normal or decreased total count by the time they come under laboratory observation. This type of infection readily exhausts the normal body resistance and causes a break in the normal leucocyte response. In this condition, however, the differential count is none the less diagnostic; for there is a definite order in which the different leucocytes originally represented in the white count disappear from the circulation and the extent to which the process has progressed can always be determined accordingly.

Beginning with a process of this kind, the eosinophiles are first to be affected and usually will have disappeared from the differential count of from five to eight thousand cells by the time the total count has reached its maximum figures, from 18,000 to 20,000 as the case may be. At this point the total count remains stationary for a period of time, depending upon the severity of the infection and constitution of the patient; after which the small lymphocytes begin to fall below their normal absolute numbers. Following this, the polymorphonuclear cells begin to drop and the process may go on until the total count reaches figures as low as 3,000 cells per cmm with practically no other cells remaining excepting the polys and the large lymphocytes. It is strange to say that the large lymphocytes are never decreased under chronicity or severity of infection.¹ On the other hand they are always increased when the other cells fail and begin to disappear from the circulation, which fact lends support to the theory of Pappenheim that the large lymphocytes are the mother cells of all others.³

THE BREAKING POINT

Every surgeon knows that there is a point in the course of a surgical infection beyond which his prognosis must be guarded and which is not always to be found in the patient's clinical condition or appearance. He knows there is a point in the patient's natural body resistance, beyond which he cannot pass to any great extent and still be able to recover. This point can very definitely be set down according to the differential count as follows:

(1) So long as all the cells commonly represented in the white count are present in normal absolute numbers, the patient's condition is good and the prognosis can be considered favorable.

(2) The eosinophiles can disappear from the circulation and have no other bearing excepting that the infection is of a severe nature.

(3) When the small lymphocytes begin to fall below normal absolute numbers, this marks the real beginning of disorganization of nature's fighting force and the point at which the case should always receive a serious consideration. There is still a chance of recovery, depending upon how quickly and thoroughly the cause can be removed.

(4) With the small lymphocytes markedly reduced and it can be seen that the polys are also falling, the greatest part of the chances are against the patient unless some radical measure of removing the cause can be resorted to successfully.

(5) With the small lymphocytes practically gone, the polys at normal absolute numbers or below and the large lymphocytes far above their normal point, the patient has no chance if the infection has not been relieved before this stage has been reached.

COMPLICATIONS

The foregoing facts regarding the classification of acute surgical infections according to the type of the differential count apply only to cases where active complications do not enter in. It is encouraging to say, however, that such active complications present themselves only very occasionally and only in a very small per cent of the cases that come to the operating table. On the other hand that they do occur and that one must be on his guard for them is seen in a case that has just come under my observation.

A girl 16 years of age was taken down with severe diffused pain in the abdomen with vomiting. An ice bag was placed upon the girl's abdomen and a dose of castor oil was given by the mother. After 12 hours the pain ceased rather abruptly and the patient got up and went about the house. The next day, 48 hours after the onset, she came down to the physician's office for an examination and a diagnosis of probable appendicitis was made and the patient sent to the hospital. The blood count at this point was 14,000 with the eosinophiles absent, but with an appreciable increase of the small lymphocytes as well as the polymorphonuclear cells. The exact absolute count read as follows: Polys 11,600, eosinophiles 0, small lymphocytes 2,000 and large lympho-

cytes 400. A considerable amount of pus was found in the urine, which was otherwise normal. The patient also gave a history of having had a vaginal discharge a few weeks previously. The clinical picture at this time was that of appendicitis; for there was considerable evidence of localization in the right side and the temperature was 102° F. The differential count and other factors, however, pointed to trouble in the pelvis and since the patient's condition was good, surgical interference was temporarily deferred. The next morning, more than three days following the onset, the blood count was still 15,000, with no change in the differential count. This part of the count still pointed more to infection of the fallopian tube than of the appendix. The patient was now brought to the operating table and the abdomen opened. The pathology found was that of almost a gangrenous appendix, but adhered to the right fallopian tube all along the lower third of its length and at the point where the abscess had formed. Upon separating the appendix from the fallopian tube, small perforations were seen on the raw surface, suggesting that the appendix was actually draining into the tube. This accounted for the apparent stationary condition of an abscessed appendix over a period of three days and also for the odd differential count in connection with it as well as the misleading clinical picture the patient presented. It is evident that the associated inflammatory condition of the fallopian tube gave rise to the increased lymphocyte count and masked the usual differential count of appendicitis.

CONCLUSIONS

(1) The differential count is very much the same in acute surgical infections and there is no basis for a specific blood picture for any one infection.

(2) A definite classification can, however, be made of such infections according to whether the leucocytosis represents an increase of the polymorphonuclear cells alone or other cells are involved as well.

(3) Through such a classification, we have a practical specific basis in the diagnostic question, through the possibility of ruling out groups of conditions in differential diagnosis.

(4) The differential count is a reliable index to the exact progress of a surgical infection and to the patient's natural body reserve.

(5) Complications do occur in which the

evidence of the differential count of the real threatening part of the pathology becomes masked through the response of the leucocytes to the less severe part of the pathology.

(6) Such instances constitute a very small part of the cases that come to the operating room, but since they do occur one should be on his guard at all times and in all such instances where there is a marked conflict between the differential count and careful physical findings, the surgeon had better follow the physical findings.

(7) The foregoing facts are based upon obtaining the exact absolute number of all the leucocytes represented in the white count through the means of the counting chamber⁴ and do not apply where the differential count is reported according to the usual percentage scale.

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The Criminal from the Standpoint of the Physician.

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Read before the Finney County Medical Society, June, 1925.

The psychiatrist does not excuse criminality, he tries to explain it. In 1875, Lombroso gave his remarkable work upon the criminal to the world. He led us to believe that from certain signs and stigmata, he could always tell a criminal. Undoubtedly he was dealing with only one type and that type, the criminal imbecile. At the present time, we believe that there is no one type covering criminality.

For example, a man may steal through poverty alone and yet not be considered very abnormal. But the kleptomaniac steals because of a compulsion which resides in his unconscious mind. He picks out certain definite articles which to him, because of this compulsion, symbolizes sex. Every time that he steals a certain article, his mentality is relieved because of this individual theft. But as soon as the theft takes place, this one article no longer has any

value to him. He therefore hunts for another article of the same kind to again gratify his compulsion neurosis. This type of a criminal steals handkerchiefs, certain garments of underwear, cuts hair and steals the buttons off of ladies' coats. Besides these special thefts there may be many other articles which to him carry sex values.

The manic-depressive may be a criminal. In his high phase, his judgment is usually poor and he lives an orgy of sex. His offenses are usually of a sensual nature and he is driven by an uncontrollable pressure to commit these crimes. His immorality is usually limited only by his own powers for sensuality and the environment in which he lives for its gratification. He frequently is the most immoral man in the whole neighborhood. However, when in the low phase, his immorality usually stops; he sits a-out, condemns himself for his crimes and frequently commits suicide. When the high phase is of a marked degree, he may kill because of this pressure of activity and as frequently happens, he hears the voice of God telling him to kill his friends. This voice he always obeys. Incidentally, I wish to say that a man or woman who hears voices which they identify as the voice of God, is always the most dangerous criminal known. If a mother, she frequently kills a whole family of children, and if a father, he frequently does likewise.

The catatonic-precox may become excited at any time and when in the excited stage, may commit murder. The chances are that a frank out and out catatonic-precox is never quite safe because of the liability to disturbance which recurs to him. A case in question will exhibit this point. An old catatonic at St. Elizabeth's Hospital, the Federal Insane, had made a very good adjustment. So much so, that for years he had been allowed to work about the kitchen. Upon a certain morning, however, with no warning, he grabbed the bread knife, ran out of the kitchen door and started down the street. He met a nurse and before she could protect herself in the least, he flourished his knife and cut her head nearly off. This one case will show you how unsafe a catatonic may and frequently does become.

The paretic frequently becomes criminal. This is because of his fantasies and hallucinations. He may start out and buy large quantities of furniture or anything which takes his fancy. This he does because he believes himself to be a very rich man. He frequently draws checks upon banks in

which he has no funds. He may drive his neighbor's cattle to market believing them to be his. Or, he may kill his wife or sweetheart and go down the street shooting right and left. For the past year the newspapers have frequently carried the name of Kid McCoy, the ex-prize fighter. While living in Los Angeles with his sweetheart, he killed her one morning about four o'clock. Then, he went out upon the street, later in the morning, went to a certain store, lined up the patrons, the men on one side and the women on the other side of the store, and compelled the men to disrobe. Finally, one man made an attempt to get away. McCoy shot him and then went down the street shooting people right and left. A noted psychiatrist of Los Angeles says that McCoy is a paretic and will be dead within two years, yet McCoy is now in prison serving a sentence for murder.

Another great class of criminals is the high grade imbecile or the moron. These people all having a mental evolution of less than twelve years, are very susceptible to suggestion and frequently are possessed with criminal trends. While taking care of the mentally ill in the guard house at Ft. Sill I came to the conclusion that the great majority of the prisoners were morons. The number of morons discovered in the army was perfectly appalling; and they made the most of the trouble which we had. They frequently stole and occasionally murdered for no other reason than they thought it was being a man. Many cases could be recited here as to the operation of suggestion in this type of patients. If the suggestion were made to a moron that the world would be better off without a certain man living, this moron would be almost sure to act upon that suggestion very much as though he were hypnotized and he would proceed to kill this individual. We have in America very nearly one million men and women who belong to this great class and who are furnishing a great per cent of the criminality.

Another class of people who become criminals is the boy or girl whose home training was very lax. When a child of two, three or four years of age is a rebel and a despot in the home and succeeds in this abnormal manifestation, this boy or girl is almost sure to become criminal later in life. If they succeed in getting what they want by abnormal conduct as a child, they will also try to gratify their wants by abnormal conduct as adults. The only child in a home is very unfortunate, and perhaps the baby of a large family may also be nearly as unfor-

fortunate. These people as adults believe that the world owes them everything and that they are going to have it at any cost. Many boys and girls from the best homes, go out into the world before they are out of their teens and develop themselves into highway robbers. They do this, not because of their inheritance but because of their training or lack of training. The newspapers are full of just such examples as I am mentioning here. A Wichita young man of nineteen whose name recently filled the newspapers was an example of this kind. Also a member of our own profession was recently convicted of an alleged murder.

Usually when we discuss the disease which we call epilepsy we always think of the convulsion. The convulsion in epilepsy is only one of the symptoms of that dreaded disease. The mental state is far more important than the physical exhibition of the convulsion. Practically all epileptics have very uncontrollable tempers. They frequently fly into passion and in these insane anger states commit crime. Many epileptics do not have a convulsion but instead have what is called an epileptic furor. In this state they are very sure to do some damage. Those who have convulsions frequently have hours and days following the convulsions in which they may do criminal acts and have no knowledge of the doing. In these states they are perfectly unaccountable.

When we consider the paranoiac we always deal with a very abnormal mentality. Beginning at the age of puberty they rapidly develop ideas of reference which ideas quickly pass over into ideas of persecution. Soon they become very jealous of those around about and frequently feel that those near and dear to them are constantly persecuting them. They feel that the whole world has it in for them. They may travel from place to place to rid themselves of this persecution but soon discover that their persecutors are still upon their trail. They finally recognize their tormentors and identify some stranger or perhaps a dear friend as the principal persecutor. And in this stage he frequently commits murder. The paranoiac nearly always murders before he is recognized as a dangerous man. But in committing this murder the psychiatrist believes him to be entirely unaccountable. Yet we find the prisons filled with his kind.

One other mental mechanism is very operative in making the criminal. The moron is an individual of a low intellectual level but there are many, many people who have a high intellectual level but a very low emo-

tional or social level. It is a natural thing for the little boy of two or three years of age to put on an Indian suit, a feather in his hat and run up and down in the street with a wooden dagger, stabbing imaginary people whom he meets. A little later he may stop his killing or his fantastic killing and may go to hunting animals. He may get a small rifle, may learn to shoot and a little later, if living in the country, he will own a bunch of traps, two or three guns and a hound dog. To him this is the acme of civilization; and scientifically considered this is perfectly normal for the boy of ten, eleven or twelve years of age. If he passes through his evolution, presently he begins to desire to be a leader in his community and a benefit to civilization. He may become a Sunday school worker and as is usual during the period of adolescence, he becomes quite religious. But there are many people whose emotional evolution remains much lower than their mental evolution. In their fantasies, they murder, they steal and are leaders of bands of highwaymen. This is a fairly normal emotional evolution to obtain at from five to seven years of age. And thousands of people when they reach adulthood are still living the life of criminals in their fantasies. Such people very frequently become criminals in reality sooner or later. Considering these facts which we have given in this paragraph, we will see how very necessary it is for the boy and girl to have a more definite, positive, obedient, religious home training. Under this class would come the Frank's case. Here we have Leopold and Loeb, two young men each having a super-intelligence but each also having a very low emotional evolution. Examination revealed that they were from five to seven years of age considered socially or emotionally. These college men lived in their emotions and in their imaginations just where the small boy of from five to seven years lives in his fantasies. Because of this low emotional level it was possible for them to commit the most heinous crime of our present century.

Recently the National Committee for Mental Hygiene made a survey of the county jails of the State of New York. 1288 prisoners were thoroughly examined, mentally and physically, with the following results. Twenty-three per cent were classed as normal from the standpoint of nervous and mental disease. Seventy-seven per cent were psychopaths of various well recognized types. Sixty-four per cent of those who were arrested for the first time were mentally abnormal. Ninety per cent of

those arrested four or more times were very ill mentally. Thus generally speaking one can readily see that we are dealing with the mentally ill.

The small number of normal persons represented by the twenty-three per cent are the only ones who will and can profit by being placed in penal institutions. It may be possible that they will leave prison in a better condition than in which they entered. To punish the mentally defective is wrong in principle. However, a certain number of mentally defectives if taken young, can be trained with good results, especially if this training is done upon industrial farms.

The epileptic should be segregated both for their own and for the public's sake and under no consideration should the epileptic be allowed to propagate his kind because it is believed at the present time that he follows the Mendelian law. Those prisoners with mental disease instead of being put into prisons should have treatment in state hospitals, while psychoneurotics should be carefully trained along industrial lines. Punishing never cures mental disease, but psychotherapy may help them very much.

I wish to digress here for a moment. Not being a lawyer, I cannot understand why a man or woman should be arrested and clapped into jail for the crime of being insane. We do not arrest a man and throw him into prison because he has pneumonia, typhoid or measles. Here I wish to quote Menninger of Topeka: "The doctor took surgery from the barber and now he must take criminality from the jailer and politician."

The doctor working with the lawyer must work out some scheme which will give better results than are at present obtained. The doctor believes that somehow, somehow a larger percentage of so-called criminals may be saved and developed into law-abiding, constructive citizens than are at present being saved.

—R—

Better Babies at the State Fair

LOUISE F. RICHMOND, M.D.

Superintendent Better Babies Department,
Hutchinson State Fair

For several years a "Better Baby" program has been carried out at the Kansas State Fair, following the general outline given by the "Better Babies Bureau" of the Woman's Home Companion, using also their standard score card.

This movement has become national in

scope, so that very interesting data are available.

As conducted by the State Fair, it is somewhat of a contest in which there are money prizes and medals for the high-scoring babies.

It has been a question in the minds of many whether the prizes were not the attraction, rather than a real interest on the part of parents to learn more about the care and conservation of the health of their children.

During the Fair just past this question has been answered quite satisfactorily. The weather was cold and rainy, and our quarters anything but ideal, yet most of the babies registered kept their appointments. From the fact that many of the parents expressed themselves as not caring about having their babies enter the contest, we are led to believe that the examination is the interesting feature.

We examined over two hundred babies during four days. Many of these babies were back for the last time, having had an annual check-up since their first birthday. A dozen or more babies are adopted, and it was very gratifying to know that these foster parents are as vitally interested in the physical and mental development of their children as are the natural parents.

It is interesting to hear the questions asked the examiners and learn of the value all this instruction is to the mothers. Two babies returned this year especially to show us the improvement that had been made in one year. One child had very flat feet and by having the soles of his shoes built up, as suggested by one of the doctors, and persisting in daily exercises, this difficulty is being overcome. Another had curvature of the spine, which had escaped the notice of the mother, as the child was apparently well. She was referred to her family physician, and he in turn referred her to a specialist, and the child will grow up with a straight spine.

The Better Baby examinations are conducted by a staff consisting of four physicians and a dentist. First come the mental tests, graded according to the age of the child. Next comes the dental examination, and here some invaluable suggestions are often given. The nose and throat examination then follows, and this is given by a specialist.

After this test the child is undressed and given a complete physical examination. Any abnormality is brought to the attention of the mother, and if serious enough, she is advised to see her family physician.

Often the defects are such that the mother herself is able to overcome them with a little instruction, and this the examiner tries to give. The most usual defects are under or over weight due to errors in diet, faulty posture, umbilical hernia, and some abnormality of the genitalia. Lastly come the weights and measurements, including various diameters of head and chest.

Community Fairs and Festivals are including a Better Baby examination in their program, and it is becoming one of the most popular features. We have numerous requests to visit these affairs and conduct the examinations. It is not always convenient but the local physician, with the assistance of one or two nurses, can manage very nicely, especially if he uses the standard score card. Some good health posters and a display of models of clothing best adapted to the comfort of the baby and young child, also model menus for children up to early school age, make an instructive addition. Many things will suggest themselves to make these Better Baby conferences exceedingly educational, and I am sure the results obtained will more than compensate for the trouble entailed.

All in the Day

By RENIG ADE

(Continued from page 335)

Upon his arrival in town a call awaited the Doctor at the home of Mr. Archibald Green. Mrs. Green was suffering greatly, and her mother, who was visiting her, had left word for the Doctor to come right up.

This was also an old case, or rather a regular one, of the Doctor's, and he knew the train of symptoms and the course of treatment. Proceeding along the line of duty he prepared to administer the remedy that had always been equal to the situation, not especially noticing the rather militant lady who had ushered him in.

An introduction furnished the information that this was Mrs. Green's mother from New York City. When about to administer the medicine he was stopped by the mother, who asked:

"Aren't you going to take her blood pressure, Doctor? Our doctor always does, and he nearly always takes a drop of blood from the ear, too, for a microscopic examination. And he usually draws his finger along the sole of the foot, and taps them on the knee cap."

The Doctor smiled, saying: "I suppose

it wouldn't do any harm, but out in this higher altitude we don't find it necessary in all cases."

The mother seemed satisfied, and the Doctor was soon on his way home.

A long fraternal life insurance blank to fill out with complete urinalysis, fee one dollar, filled in the time nicely until supper, or rather dinner, as it was usually designated by the wife.

After a hearty supper the Doctor eased himself down in the big chair, closed his eyes and meditated on the day. Soon the chin dropped, and the heavy breathing officially indicated that business hours for the day were over.

The wife silently moves about her household duties, solicitously shades the light from the sleeper's eyes, and notes the new wrinkle in the forehead that has made its appearance.

The telephone clangs. The wife hurriedly takes down the receiver.

"Yes, yes—he is sleeping—he is very tired. Oh, is it you Judge? I will call him."

The Doctor sleepily gets up and goes to the phone.

"Yes, hello Judge. Yes—oh, is that so? Well, I'll come right over."

The Doctor grabs his hat and dashes out, saying he has to go over to Judge Elder's. The Judge meets him on the porch and puts his finger to his lips. Evidently secrecy is most important.

"How is she?" asks the Doctor.

"I don't know, she's been quiet all afternoon," said the Judge, "and I want you to look her over."

Quietly they entered the home, and silently filed through the kitchen. Down the cellar steps they carefully picked their way as though fearful of disturbing the one that had for weeks been writhing and twisting in a corner of the basement.

Tenderly the Judge pulled back the old carpet that served as a covering, and the Doctor, with professional eye, stooped down and gazed intently at the quiet object before him.

Could it be possible that a few hours before here was turbulent life and spirits clamoring to be freed from their environment?

The Doctor placed his thumb down in the five-gallon crock, licked it off as a connoisseur might, and remarked in a low voice:

"Yes, she's stopped fermenting all right."

"She ought to be skimmed," said the Judge, noting the skum and debris that ed-

died about as the Doctor's thumb agitated the odoriferous mixture.

The top of a lardcan functioned as a skimmer, and the hardened criminals succeeded in removing the greater part of the supernatant fungus. An occasional cherry floated to the surface, and boldly proclaimed the basic ingredient.

Only the Judge and the Doctor knew that two gallons of this delectable fruit nestled guiltily in the bottom of the jar. For had they not driven ten miles to the country a few weeks before and purchased them from a German client?

In order to cover their tracks carefully they had both solemnly assured him several times that the cherries were to be canned by their respective wives.

The German, who as the time had three jars and a washboiler full riotously fermenting in the children's bedroom upstairs, only grinned and said: "Sure, you bet," but gave them a parting admonition to "skim her every few days."

The sex being thus determined, ever afterward the effeminate "she" was used to designate the gestation that was taking place in the cellar.

The Judge and the Doctor retraced their ghoulish steps back to the front porch, and there and then plotted a bridge game for the following Friday night. Incidentally this was the night that the D. A. R. would assemble at the Doctor's home for their semi-annual business meeting; the Judge's wife being president of the Society.

In pre-Volstead days these men were honorable, upright citizens and a pint of fine old brandy would stand in the pantry of either home unmolested for months, waiting for sickness or accident to bring it from its hiding. Now times were changed. The arbitrary law that had robbed men of their independence was being flagrantly violated on all sides. Raisins and cherries, rhubarb and dandelion, in fact anything that would grow and rot, was being pressed into service in the unholy warfare against Volstead. Awful smelling concoctions, which had been stimulated to fermentation by a small hunk of humble Fleishmans, were found in nearly every cellar. The kitchen range, which lay idle during the summer months, concealed in its capacious oven the potential energy of several hilarious parties.

The Doctor sadly thought of this awful state of affairs as he promised the Judge he would be over Friday night. On the way home he stopped at the drug store for the

evening paper, and patiently waited while the druggist prescribed for the preacher's liver. He inadvertently learned the startling pathological fact that the latter had been liver-grown since he was a child, caused by walking when he was too young.

This valuable addition to his scientific armamentarium the Doctor carefully stowed away in his mental archives, politely opened the door for Knud Knutson's pothound, for whose intelligence he had considerable respect, and walked slowly homeward.

After looking over his mail, which consisted mostly of glandular literature, and a letter from the Florida land company in which he was interested, saying the new dredge just purchased for drainage of the new town site just plotted had sunk out of sight in the court-house square, the Doctor tenderly put the cat outside, wound the clock, and called it a day.

—R—

Alkalosis in Pernicious Vomiting of Pregnancy—Report of a Case.

By HOWARD E. MARCHBANKS, A. B., M. D.

Alkalosis is a condition that exists when the CO_2 combining power of the blood plasma is increased appreciably above normal. The normal combining power is from 50 to 60 volume per cent. The blood chlorides are found to be low in alkalosis of intestinal obstruction (Hayden & Orr)¹ so by the addition of sodium chloride the CO_2 is lowered and the alkalosis is relieved.

The work being done on chlorides by Dr. Russell L. Hayden of the Department of Experimental Medicine of the University of Kansas, will perhaps be epoch making in that it has already proven of inestimable value in combating the intoxication of intestinal obstruction as well as in other conditions of lowered chloride content.

Hayden has found that a 3 per cent sodium chloride solution can be given with safety by hypodermoclysis and that 70 to 80 grams of chlorides can be given to the average adult, daily, with safety.

The report by Drs. Hayden and Guffey on "Alkalosis in Pernicious Vomiting" in The American Journal of Obstetrics and Gynecology of October, 1924, gave me the idea of looking for it in the case of pernicious vomiting that I wish to report. This patient was referred to me by Dr. Alan Parrish of Mulberry, Kansas.

Mrs. C. P. C., Hospital No. 4203. Patient came into Mt. Carmel Hospital at 3:30 p. m. June 14, 1925, with the complaint of vom-

iting with pregnancy. On entrance her temperature was 103.6, pulse 140, respiration 40. This was her first pregnancy. The physician who had been seeing her was out of town so Dr. Parrish of Mulberry was called to see her. He advised her to go into the hospital at once.

Her past history revealed that as a girl, she had always been quite well. Her periods had been painful, however, each month and were somewhat irregular. She flowed three or four days.

Her father and mother are both living and well at 58 and 53 years respectively. She has five brothers, living and well. Three died when infants and one died at 20 years but the cause was not known. She has two sisters, living and well. None of her relatives had experienced a similar condition.

Her last menstruation had been March 10, 1925, and she had vomited since about April 15th. Had kept down some fruit juices and soup the last few days but the amount was not appreciable. She had been running fever for two days before entrance. She had been passing a fair amount of urine but it was highly colored. She had been taking a daily enema. Skin and lips had been dry and parched all along but she thought they were a little better on entrance. She had been having light twitchings over body for the past 12 hours before entrance, more or less rhythmic in time. She complained of some pain in lower right quadrant and some headache, but not severe. She had been in bed more or less for 8 weeks but constantly for 4 weeks. Had taken various medicines without results.

On physical examination we found a fairly well nourished young married woman of 25 years. Had appearance of one sick with fever for several weeks. Pupils small, reacting sluggishly to light. Mouth, tongue and lips dry with caries on lips and gums. Teeth in fair condition, dry throat. Neck—Thyroid and cervical glands not enlarged. Chest—Heart rapid but no enlargements or murmurs. Lungs normal. The blood pressure was S-120, D-60. Abdomen, liver and spleen not palpable. No masses palpable except uterus was enlarged to about the size of 12 weeks pregnancy. There was no discharge from vagina and no show on examining fingers.

Examination was otherwise negative except the laboratory findings. The urinalysis was normal except a few pus cells were present. 3,820,000 red cells, 70 per cent haemoglobin, 9,100 white cells with 80

per cent polymorphonuclears. Her blood sugar was 133 mg. per 100 cc. of blood. The CO₂ combining power of the blood plasma was 85.7 volume per cent. The chlorides in the blood were not determined on entrance.

Due to her dehydration we ordered at once, 600 cc. of the 3 per cent glucose by hypodermoclysis. An enema was given immediately as well as a gastric lavage. 600 cc. of normal salt solution were given that night by hypodermoclysis. After learning that the blood plasma CO₂ was 85.7 volume per cent we realized that an alkalosis existed and having recently read of the work of Drs. Russell L. Hayden and Don C. Guffey of the University of Kansas, I felt fairly confident that results could be had by the large doses of sodium chloride, subcutaneously. 1600 cc. of 3 per cent salt solution were therefore ordered for the next 24 hours, to be given at 6 hour intervals by hypodermoclysis. A single gastric analysis at 60 minutes on the second day of entrance gave a total acid of 29 degrees and no free hydrochloric acid. The fasting stomach was, total 21 degrees, free 0.

After the first 24 hours the temperature began to go down and was normal on the fourth day. We continued to give her about 2000 cc. of salt solution by hypodermoclysis, daily, for about 5 days. After 48 hours, June 16, 1925, CO₂ tension was 76.8 volume per cent. On June 17 the blood sugar was 80 mg. per 100 cc. of blood and the blood chlorides were 520 mg. On the next day the CO₂ tension was 57.9 volume per cent and with her temperature down we began to feel fairly hopeful.

We gave her glucose per rectum in fairly large amounts and some by hypodermoclysis but not until June 25th did we give her glucose, intravenously. Here we gave her 30 grams every 6 or 8 hours in distilled water, using 15 per cent solution. We also gave her 10 units of insulin immediately following the glucose. Our salt solution was discontinued because on the 25th the CO₂ was still 59.8 volume per cent and by June 30, it was 61.7 volume per cent with the chlorides up to 570 mg. Her legs and breasts became so sore we had to discontinue the hypodermoclysis and by July 6th, the CO₂ had raised to 76.8 volume per cent with the chlorides still at 610 mg.

We had tried various means of getting carbohydrate food into her. She would hold it down fairly well for a few hours and though we tried every scheme we knew,

she would eventually vomit practically all she had retained.

Her red cells were down to 3,000,000 with 55 per cent haemoglobin so on July 1st we gave her 570 cc. of blood by the syringe method. Very little help was received from this and on July 3, the red cells were still about the same. She was losing in spite of all we could do and was getting discouraged as was the good husband who had helped in every way that he could with the care of her. On this date we dilated the cervix and put a pack in the uterus which we removed the next morning. She passed the foetus next day and we removed the placenta. She still lost ground and we again transfused her on the 7th but she died the same day.

The foetus was macerated more than one would expect it to be in so short a period. Whether or not it had been dead for some time prior to uterine pack we are unable to say. However, there was no discharge whatever and the temperature had been fairly normal except on the two days before interruption was done.

This case is one that should have been handled earlier. There are numerous ways of controlling vomiting if seen early in the pregnancy before starvation is so definitely advanced. I have had but one case that was anything like this and a single shot of glucose, intravenously, turned the tide on her and she went ahead and ate every meal thereafter. She was in acidosis and coma but the glucose worked like magic. In her case it was pure starvation and food was all she needed. She went on to term in good condition.

Conclusions:

Alkalosis is a late stage in some cases of pernicious vomiting of pregnancy.

Salt solution, given intravenously or by hypodermoclysis, will lower the CO_2 combining power of the blood plasma and relieve the alkalosis.

Glucose and fluids should also be given in large amounts to combat starvation and dehydration.

Early careful treatment of vomiting of pregnancy will usually prevent acidosis or alkalosis.

1. "Essential Factors in the Treatment of Intestinal Obstruction."

T. J. Orr, M. D., F. A., C. S.

Russell L. Hayden, M. A., M. D.

Journal of Missouri State Medical Association,
October, 1923.

HISTORY OF THE KANSAS MEDICAL SOCIETY

(Continued from page 339)

An adjourned meeting of the society was held in Topeka on January 15, 1889. Fifty-two members are recorded as in attendance.

The committee on Library reported progress. A motion was carried that the committee on library be increased to five members, and that the committee inform Mrs. Stormont as to the approximate amount required to establish a respectable nucleus for the Stormont Library.

Dr. O'Brien presented a request from the Board of Health of the City of Topeka, asking that the State Medical Society take cognizance of the sewerage system of the Topeka Insane Asylum and its element of danger to the public health. He further urged the importance of considering the subject of the pollution of the rivers of the state; that we memorialize the State Board of Health and Legislature respecting this subject; that we aid and assist the State Board of Health in this matter. On motion a committee consisting of Doctors Minney, O'Brien and Alexander was appointed to advise with the State Board of Health on state sanitation.

The next annual meeting of the society was held in Topeka May 7, 8, 9, 1889. There was a large attendance. Thirty-four applications for membership were reported favorably by the Board of Censors and the applicants duly elected.

The treasurer reported a balance on hand of ninety-seven dollars.

After some favorable comments upon the Kansas Medical Journal which had recently been established in Topeka a motion was carried "that the Kansas Medical Journal be made the official organ of the Kansas Medical Society."

The nominating committees reported the names of the following officers who were elected: C. C. Green, Winfield, President; M. B. Ward and A. Leigh, Vice-President; J. E. Minney, Secretary; W. W. Cochrane, Treasurer. The following members of the Judicial Council were also elected: W. L. Schenck was carried: "Resolved, That Mrs. A. B. Peters.

The following resolution offered by Dr. Schenck was carried: "Resolved, That Mrs. Jane Stormont, wife of the late Dr. W. D. Stormont, be constituted an honorary member of the Kansas State Medical Society."

A committee on revision of the constitution and by-laws made a provisional report suggesting the amendments should provide

four classes of members; delegates, permanent members, members by application and honorary members; and that one vice-president should be elected from each auxiliary district society represented at the annual meeting; and that permanent members who were not active in support of their local societies should forfeit their membership in the society.

The Committee on Library made the following report: Mr. President:—Your committee on Library beg leave to make the following report: In obedience to the instructions of this Society to confer with Mrs. Jane C. Stormont, and carry out the provisions of her gift, we drafted a bill which embodied her ideas and which met with her approval, and presented it to the State Legislature. The bill passed both houses, and was approved March 4, 1889.

The bill as passed reads as follows: AN ACT accepting a memorial gift from Jane C. Stormont, of Topeka, Kansas, widow of the late Dr. David W. Stormont, for the purpose of establishing and maintaining a State Medical Library.

Whereas, Mrs. Jane C. Stormont, of Topeka, Kansas, widow of the late Dr. David W. Stormont, has generously presented to the State of Kansas the sum of five thousand dollars in money, for the purpose of establishing and maintaining a medical library for the use and benefit of the people of the State of Kansas, and particularly for the use and benefit of the medical profession in said State; and—Whereas, Said gift is made upon the conditions that said sum shall constitute and remain a "perpetual endowment fund," to be known as "The Stormont Medical Library Fund," and that no part of said principal sum shall ever be expended for any purpose, but that the same shall be invested, and from time to time re-invested, as the State of Kansas may by law direct, for the benefit of said library fund, and the interest and accumulations thereof shall be expended in the purchase of books, charts and magazines relating to the science of medicine and surgery, and kindred and associated sciences, which books, charts and magazines shall be purchased from time to time by such person, board or officer of the State of Kansas as may be provided by law; but such purchases shall be made upon the recommendation of the library committee of "The Kansas Medical Society," or such other committee as said society may from time to time designate; but if such society shall fail or neglect to appoint or maintain such committee, then such books, charts

and magazines shall be purchased under the direction of such person, board, or officer, as may be authorized by law, and which library shall form and constitute a part of the library of the State of Kansas, and shall be known and designated as "The Stormont Medical Library," and shall be forever kept and maintained with the State Library in the State capitol building, and which library shall be forever free for the people of Kansas, and particularly for the medical profession of the State, under such rules and regulations as may from time to time be prescribed by the directors or officer having charge of the State Library; therefore, Be it enacted by the Legislature of the State of Kansas:

Section 1. The State of Kansas hereby accepts from Mrs. Jane C. Stormont, the sum of five thousand dollars, mentioned in the foregoing preamble for the uses and purposes, and upon and subject to all the terms, conditions, and limitations mentioned and expressed in said preamble; and the treasurer of the State of Kansas is hereby directed to accept and receipt for said sum of five thousand dollars, and place the same upon the records of his office, to the credit of "The Stormont Medical Library Fund" which sum shall constitute a "perpetual endowment fund" for the purposes named in the foregoing preamble and for no other purpose.

Section 2. The school fund commissioners are hereby directed to invest, and from time to time reinvest, said endowment fund and its unexpended accumulations in some safe interest-paying security, and from time to time pay over to the state treasurer the accumulations thereof.

Section 3. For the purpose of enabling said state school fund commissioners to invest and reinvest said endowment fund and its unexpended accumulations, the state treasurer is directed from time to time to pay the same out upon warrants drawn by said commissions, and said state treasurer is also directed to pay out from time to time upon warrants drawn by the State Librarian, from the interest and accumulations of said endowment fund, sufficient money to pay for such books, charts, and magazines, as may from time to time be purchased by the State library committee, or by such person, board or officers, as may be authorized by law; and so much of the accumulations of said sum of five thousand dollars as may be necessary for the purchase of such medical books, charts and magazines, is hereby appropriated for that purpose; and the said sum of five thousand

dollars and its unexpended accumulations is hereby appropriated for investment as herein provided.

Section 4. The State librarian is hereby directed to receive and keep in the state library room all standard medical books, charts, and magazines, that may be purchased under the provisions of this act, subject to the same rules as to the use thereof, as are other books in said State library, which books are to be kept together, and shall be known as "The Stormont Medical Library." Said librarian is also directed to accept, in behalf of the state, and to keep in the same manner any and all other medical books, charts and magazines, that may be donated to the state by Mrs. Jane C. Stormont, or by any other person or body as a part of "The Stormont Medical Library."

Section 5. This act shall be in force from and after its publication in the statute book.

Approved, March 1, 1889.

In addition to this liberal donation, Mrs. Stormont has informed your committee, that in accordance with section 4 of this bill, (which instructs the state librarian to receive such other medical books, charts, and magazines, that may be donated by her or others), that she proposes to add \$5,000.00 in books as soon as said bill shall become a law, and has requested your committee to make out and present to her such list of books as they may deem proper and advisable. Dr. Reid Alexander, Dr. J. F. Minney, Dr. W. L. Schenck, Dr. C. H. Guibor, Dr. William A. Phillips.

At the twenty-fourth annual meeting, held in Salina, May 13, 1890, sixty members answered to roll call, thirty-eight new members were admitted.

The following resolution offered by Dr. Guibor was adopted: "Resolved, That the best interests of the Kansas State Medical Society will be best served by a change of officers each year. Resolved, that it is the sense of the members of the Kansas State Medical Society, that a division of the work of the society into sections would add to the interest and increase the number of valuable papers which might be presented, that cannot now be under existing circumstances."

A committee appointed to arrange the plan of section meetings reported the recommendation that the society be divided into four sections as follows: General Medicine, Surgery and Anatomy, Obstetrics and Gynecology and Diseases of Children, Ophthalmology, Otology and Laryngology; and

that each section be officered by a chairman and secretary; that the afternoon and evening of each day of the annual meeting shall be devoted to the section work.

The nominating committee reported as follows: Place of next meeting—Wichita. Officers for the ensuing year—President, J. E. Minney; Vice-Presidents, W. A. Phillips and A. B. Peters; Secretary, W. S. Lindsay; Treasurer, N. T. P. Robertson; Member of Judicial Council, F. M. Daily.

The twenty-fifth annual meeting was held in Wichita, beginning May 13, 1891. Thirty-seven members answer to the first roll call. Forty applications were approved and the applicants elected to membership. Some amendments to the constitution and by-laws were proposed by Dr. Guibor and laid over for action until the next meeting.

On motion it was decided that the resolution adopted at the last annual meeting to the effect that officers of the society should be changed each year, should not apply to the office of secretary.

This was the first meeting at which the society was divided into sections. There appears to have been more than the usual interest in the program. More papers were read and they were more thoroughly discussed if one may judge from the reports of this meeting.

The nominating committee reported the next place of meeting, Topeka; the officers for the ensuing year; President, J. E. Oldham; Vice-President, A. H. Cordier and J. T. Axtell; Secretary, W. S. Lindsay; Treasurer, L. A. Buck.

(To be continued)

R

Angina Pectoris in a Youth of Eighteen

S. Chaille Jamison and George H. Hauser, New Orleans (Journal A. M. A., Oct. 31, 1925), report on this very rare occurrence. It is interesting that there is no evidence of syphilis in this case, and also that there is no disease of the aorta. As the necropsy in this case was performed at an age before the arterial changes of later life could come on and confuse the pathologic picture, it seems to lend strong support to the prevalent idea that angina pectoris is due to changes in the coronary arteries, and, to a certain extent, to refute the theory that syphilis and aortitis play a necessary part in the production of this syndrome. It seems that, in this case, the plausible idea is that the cardiac changes were the result of a focal infection, the original focus being the appendix.

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Kansas Medical Society

W. E. McVEY, M.D. - - Editor

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FUNCTION OF A MEDICAL SOCIETY

There is some difference of opinion concerning the proper function of a medical society—whether it should concern itself entirely with the interests of the profession which composes it or should direct considerable part of its energies toward the public welfare, particularly toward the correction of misconceptions of the etiology and pathology of diseases, and errors of judgment concerning the art of healing.

The medical organizations in this country have devoted a great deal of time and have spent considerable money in efforts to teach the people something about disease and its prevention. Numerous other agencies are engaged in the same very worthy cause. Enough has been accomplished to arouse in the people an interest in the care of their physical and mental health. The greater part of the work has been done by various branches of public health service and by lay organizations—both commercial and charitable. In some states medical societies have co-operated with these numerous organizations, in other states members of the medical profession have freely lent their support, independent of the medical societies.

To a casual observer, who is a good lis-

tener, it might appear that most of the information that the people really grasp, may be traced to the public health nurses, school nurses and the health departments of farm bureaus. Many of the people come to their family physicians for confirmation of the things they have been told, but it seems to be true that nurses are able to impress certain facts upon their minds and to awaken their interest to a greater extent than have the doctors.

This work of public instruction is going forward and its results are being manifested in very definite effects upon the mortality rates and upon the incidence of some diseases, quite as surely in the states where the medical societies have not co-operated to any particular extent as in those states where the medical societies have assumed, or endeavored to assume, control of all activities along this line. At any rate this seems to be true in those sections of our own state where there are efficient public health organizations and where these have the co-operation and assistance of lay organizations.

If it is true that this public education is being carried forward as well without the aid of the medical societies as with it, there is no particular reason, except in the matter of policy, why they should not abandon the stage upon which they seem to play but a minor role.

That is one conclusion that might perhaps be justly reached from the situation as it appears at this time, but there is a phase of this educational work which is closely related to the practice of medicine—which in every essential particular is practicing medicine—and in justice to the profession the medical societies should assume control of this part of the work at least. Examination clinics, tuberculosis clinics, venereal disease clinics, children's clinics, etc., are very important features of the general work of education and, since they must be conducted by practitioners, should be under the closest observation of the officers of the county societies. No member should be permitted to contribute his services to a free clinic which has not been ap-

proved by the county society, and no such clinic should be approved in which the observance of the principles of ethics will not bear close scrutiny.

This is a function which properly belongs to the county society and the society that fails in its performance is delinquent in its duty to its membership.

There are differences of opinion as to the proper attitude of medical societies in the matter of protecting the people against irregular and incompetent practitioners. Naturally a good many feel that the societies should endeavor to legislate the substitutes for doctors out of the state. It is needless to say that all such efforts so far have failed to accomplish anything of importance. Such efforts will continue to fail until the medical profession is organized on some plan that provides particularly for the protection of its interests.

Perhaps it would be better to assume the attitude of the British Medical Association and permit the people to look after their own protection against incompetent practitioners—if they want such protection, and expend our own energies in improving the standing of our own men, in creating greater respect for the profession among its own members, in safeguarding their welfare, and perhaps in providing indemnity against the hazards of medical practice. It may be well to consider the policy of providing some conservative means for the salvage of our professional derelicts. It might even be possible to provide some tangible evidences of our respect and consideration for the aged, infirm and indigent in our ranks.

We have not yet learned to regard our medical societies as designed for any other than scientific purposes. Their potential resources for improving the status of the profession in public affairs and for placing the practice of medicine on a stable financial basis have not been considered. But even as scientific bodies the medical societies can do much for their members that will ultimately prove of quite as much benefit to the people as will the more direct methods of approach now in vogue. None of us in the profession knows so much

about medicine that a little more knowledge would do him harm. It is possible for a county society to develop a program that is really educational, one that will require study and investigation on the part of the members.

THE STORMONT MEDICAL LIBRARY

When the Stormont Medical Library was established, by the generosity of Mrs. Jane Stormont, it was stated in the act passed by the legislature that this library should be "particularly for the use and benefit of the medical profession of the State of Kansas." It was provided in this act that purchases of books, magazines, charts, etc., for the library should be made "upon the recommendation of the library committee of the Kansas Medical Society or such other committee as said society may from time to time designate."

Our present constitution and by-laws do not contain any provision for such a committees and our records do not show that such a committee has been appointed in recent years. Some years ago it was customary for the State Librarian to submit a report of the library at each annual meeting of the society, but this custom is no longer observed.

A few years ago some effort was made to awaken some interest in the library and some purchases were made upon the recommendation of some members of the society. A list of all the books then on hand was published in the Journal. Complaint had been made that very few doctors ever consulted the medical section of the library. A perusal of the list of books would readily explain the lack of interest for there had been very few additions to the old nucleus donated by Mrs. Stormont, and many of the purchases that had been made were of doubtful interest.

With the interest on the endowment fund available each year it certainly should be possible to build up and maintain an excellent reference library. At any rate the society should feel some responsibility in the matter. Since Mrs. Stormont really gave the books and the endowment fund to

the society, it should at least appoint a committee to advise with the State Librarian as to the purchase of books and magazines.

—|— Standing Committees

The following standing committees have been appointed by the President, Dr. F. C. Carmichael:

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Dr. J. F. HassigKansas City
Dr. W. E. McVeyTopeka

CHIPS

The newer surgery is doing away with the scalpel. The acusector (electric cutting needle) is nosing it out.

Physiotherapy is having its inning. Radiant heat, actinic rays, ultra violet light, diathermy, etc., are terms that now roll lightly from the tongue of the general practitioner. There is, no doubt, some merit in each of them. The success in treatment is dependent upon the doctor's inerrancy in diagnosing the indications for each of the methods.

A correspondent suggests that in the use of the actinic rays, two grains of quinine or calcium given a couple of hours before the treatment adds materially to its curative effect.

Scientists tell us that the earth wobbles on its axis. If this is true, the equator will soon be wiped off the map. A wobbly automobile tire is short lived.

Isostasy is the theory of general equilibrium in the earth's crust supposed to be maintained by yielding or flow of rock material and other filling, beneath the surface or inside the earth, by stress of gravitation. When applied to man's head Isostasy is the theory of general equilibrium supposed to be maintained by the yielding or flow of brain material within the skull by the stress of gravitation. The flow or agitation of brain substance (gray matter) depends upon the age.

Phrenologists founded their psuedo-science on the bumps or lumps on the outside of the cranium but the phrenologists are entirely discredited, now, since the auto has come into use. The lumps or bumps on the casing are found to be sand boils or wind galls caused by sand or gravel or hot air.

The new treatment for high blood pressure consists in hypodermic injections of extracts of the liver. Care should be taken not to inject an excess of gall.

Dr. Thomas Cherry, Melbourne, has called attention to a suggestive relation between the mortality rates in tuberculosis and cancer. (Lancet, Sept. 26.) He shows from the records that as the number of deaths from tuberculosis have decreased, those from cancer have increased. The percentage of decrease in the one case has corresponded rather closely with the percentage of increase in the other. He admits

that the fact that the one disease appears to be taking the place of the other may be a chance coincidence, but the figures need further analysis.

Dr. Cherry further states that the figures he presents appear to be conclusive against the theory that cancer is simply one of the degenerations of old age, and that the present increase is due to the higher percentage of people that now reach old age. He found, by grouping into age periods, the higher the percentage of any group that reached 65, the lower is the cancer incidence at all age-periods of that group. If old age was a dominant factor we should expect the cancer-rate to increase steadily up to the end of life as is seen in the deaths from cerebral hemorrhage.

Flick in his recently published book on "The Development of our Knowledge of Tuberculosis" says: "In individuals in whom the tubercle bacillus grows meagerly, in whom it has produced but slight toxemia and in whom it has set up no serious changes in the tissues, it not only may give no discomfort but may stimulate the functional activity of those organs of the body which have to do with the enjoyment of life. In this way the tubercle bacillus may make life more pleasant and make the individual more profitable to society than he otherwise would be."

The Ohio State Medical Society put its defense system into operation in 1916. A recent report shows that 122 cases have been defended. Their defense council has adopted some important regulations that might be profitably considered by other state defense boards. Defense is not granted to a member who fails to forward his application within ten days after the service of summons. Defense is not granted in fracture cases to a member who fails to keep roentgenograms of the fracture on file. Defense is not granted to members who have brought on a cross complaint by suing to collect a bill within one year of the termination of his services.

At the opening of Guy's Hospital in London, Major J. H. Beith delivered an address to the students in which he told them, among other very practical things: "Humanity fears one thing above all others—the unknown. What frightens a patient most of all is to have nothing definitely wrong with him. Once a definite cause has been assigned to his ailment, once you have hung a label on it marked in plain figures

and given him something physical to hold on to, he will endure almost anything. So, if you can, be explicit with him upon this point, even though you may not have the slightest idea what is the matter with him."

Cases of diabetes that have been treated with insulin may develop a coma very suddenly when the insulin is stopped. This is particularly true in those cases that have gained considerable weight under the insulin treatment. This weight is due to accumulated fat and fat is the chief source of ketone bodies. When the carbohydrate metabolism fails on account of the withdrawal of insulin the fat is drawn upon and ketone bodies are formed in large quantities. These ketone bodies poison the heart muscle, circulatory failure causes renal failure and further accumulation of poisons.

In England the Medical Defense Union insuits. It has now a membership of 12,617 suits. It has now a membership of 12-617 and its assets are about 19,000 pounds. It is now offering unlimited indemnity for the modest subscription of one pound per year. Ninety-seven cases were referred to its solicitors during the year, but ten of these were withdrawn. Only one case was lost and it is said that the amount of damage in this case was greatly needed.

Apparently there are some who do not believe that acute rheumatic fever is due to infection. A recent writer calls attention to the normally subnormal temperature in the subjects of acute rheumatism, and to the habitually inactive skin and the inclination to short attacks of fever with increase of pain and acid sweating; and concludes that the basic factors in rheumatism are—an error in metabolism leading to the storage of lactic acid compounds in the tissues, and a failure of the skin to expel this poison except under the stimulus of fever. However, no evidence is presented to show that these conditions are not themselves due to infection. At any rate when a focus of infection is found the prospect for the recovery of the patient is much enhanced by its removal.

A correspondent in the *Lancet* suggests large doses of bismuth subcarbonate in the persistent diarrheas that sometimes occur in cases of pulmonary tuberculosis. He states that he has given single doses of from four drams to two ounces. Where such large doses are given there must be certainty that the drug is pure and free from arsenic. It is given in milk and taken very

slowly, as much as two hours consumed in the swallowing of the mixture. It should not be repeated for at least three days. The writer claims that though intestinal obstruction might theoretically be expected he has not observed any such results from his administration of these large doses.

Some time ago it was reported that the Health Commission of the League of Nations, with the assistance of some other commission had worked out an estimate of the narcotic needs of the world, or that part of it within reach of medical service, as 450 mg. of raw opium and 7 mg. of cocaine per capita. This estimated population in reach of medical service was 744,000,000, so that the total opium requirement is 335 tons per year. The world's assumed total population, however, is 1,747,000,000. Mr. Gavit, formerly managing editor of the New York Evening post, suggests that if 450 mg. be allowed for every man, woman and child in the world, the outside total as the conceivable medical and scientific needs of the world would be 786 tons of raw opium per year. On a conservative estimate there are 8600 tons of opium produced each year, or more than ten times the estimated medical and scientific needs of the world. It is hardly conceivable that it requires nearly seven grains of opium per capita to meet the medical and scientific requirements of the population, but it is less conceivable that more than two drams per capita could be consumed annually for illegitimate purposes.

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KANSAS MEDICAL LABORATORY ASSOCIATION

QUESTIONS AND ANSWERS

Several members of the Kansas State Medical Laboratory Association have suggested the advisability of making use of part of the available space for questions and answers. Accordingly we have begun it with this issue in answer to the following inquiry.

Doctor Sherwood:

Have you conducted any investigation of the bacteriology of baby foods? If so, I would appreciate any information you may have to offer.

Yours very truly,
DOCTOR G.

BACTERIOLOGY OF BABY FOODS

Recently considerable interest has been evident concerning the bacteriology of baby

foods. In 1917 Mr. Roy Rankin reviewed the literature and carried out a short investigation while he was a graduate student at the University of Kansas. Out of eight different kinds of baby foods examined by him, he found one that was sterile. One contained moulds but no bacteria. The bacterial count on the others varied from 100 per gram to 60,000 per gram when dilutions were plated in fresh meat infusion agar and grown at 37°C. Qualitatively speaking he found the aerobic spore formers *B. Vulgatus* and *B. Subtilis* commonly present; an anaerobic spore producer probably *B. Welchii* in one sample and aerobic non-spore producing organisms such as *B. Zenkeri* and *B. Cloacae* in another sample. His results would apparently warrant further investigation of the bacteriology of baby foods.

In regard to the significance of these organisms, the aerobic spore producers *B. Vulgatus* and *B. Subtilis* are common saprophytes found in the air and soil. The non-sporulating organisms, *B. Zenkeri* and *B. Cloacae* are proteolytic organisms. *B. Welchii* is an anaerobic proteolytic spore-forming organism that probably forms a soluble toxin. It is found commonly in feces.

POSSIBILITY OF LABORATORY WORK IN CONNECTION WITH SCARLET FEVER

The results of the recent work on scarlet fever point strongly to the streptococcus etiology of that disease. Apparently it is a toxemia with the focus of infection in the nasopharynx. This is of importance to laboratory workers since certain public health problems must be solved by means of the laboratory if the streptococcus etiology is established as it now appears to be. Rapid methods of isolation and identification will be needed in early diagnosis, in rational release, in determination of carriers, etc., such as is now done with diphtheria. The present methods of procedure would be to streak out from the throat or naso-pharynx on to 5% blood agar plates. Meat infusion agar having a reaction of Ph 7.4 should be used. Cultures are made from any hemolytic streptococcus colonies that may appear and these grown in either calcium carbonate serum broth or in blood broth.

Two methods of determining whether these streptococci are scarlet fever streptococci are suggested. The first is by the agglutination reaction such as we use for pneumococci, meningococci and several other pathogens; and the second method is by the Dick test using sterile filtrates from the blood broth cultures and injecting di-

lutions of these intradermally into some individual that is known to give a positive Dick test. Dr. Dick has suggested this method and considers all streptococci giving positive reactions as being scarlet fever organisms.

In carrying out the agglutination reactions fairly high titred immune serum should be used and adequate controls included. It has been shown that just as in pneumonia and in meningococcus meningitis there are several types of pneumococci and meningococci respectively, so there are several types or groups of scarlet fever streptococci. If the present conceptions hold true then one might expect either type diagnostic serum or polyvalent diagnostic serum to appear on the market. Spontaneous agglutination must always be ruled out as it is a great source of error.

NOTES OF THE WASSERMANN REACTION AND KAHN TEST

Dr. J. L. Lattimore has summarized the results reported in his paper as follows:

1. In Wassermann work, ice-box fixation has given more satisfactory results than water bath fixation.
2. Wassermanns may be done upon freshly oxalated blood with impunity.
3. The Kahn is a good check on the Wassermann but should not replace it.
4. The quantitative Wassermann should be used in all treated cases.
5. Natural hemolysin should be removed from serum before it is used in the Wassermann reaction.

SOCIETIES

ATCHISON COUNTY SOCIETY

At a meeting of the Atchison County Medical Society, October 14, 1925, subscriptions for "Hygeia" were ordered for the Atchison Public Rest Room, Atchison Public Library, Atchison High School, Atchison Public Health Association, and the Y. M. C. A.

Dr. C. A. Lilly of Atchison delivered an address on "Essential Hypertension."

Fifteen members were present at the meeting.

T. E. HORNER, Secy.

JOHNSON COUNTY SOCIETY

I notice that in the roster of the Counties, on the back page of the Journal, that Johnson is blank. However, we are doing business in our medical society, and the spaces should read as follows:

President, Charles H. Lester, Olathe.

Secretary, D. E. Bronson, Olathe.

Meetings held second Monday except July and August.

The present officers were elected in March, 1925, and we have had regular meetings since. Our October meeting was at the Hotel Olathe, with a banquet and our wives as our guests. Dr. F. C. Neff and Dr. Ralph H. Major, with their wives, were present. Dr. Neff read a paper on Infant Feeding, while Dr. Major gave a talk illustrated with slides, upon Hypertension. Our November meeting will be at the Chamber of Commerce rooms, Olathe, November 9th, 7.30 p. m.

Fraternally yours,

D. E. BRONSON, Secy.

SEVENTH DISTRICT SOCIETY

The Seventh District Medical Society met at the Hutchinson Country Club, October 15, immediately following the radio report of the final ball game of the world series. A fair attendance was registered, ten counties of the district being represented.

The following program was listened to with interest:

"Syphilis of the Stomach," with X-Ray films....Dr. G. R. Paine, Hutchinson
 "Recent Developments in the Knowledge of Malignant Tumors," with slides and tumor specimens.....

R. H. Wahl, M. D., (University of Kansas School of Medicine).

"Treatment of Neiserian Joint Infections".....Dr. J. A. Dillon, Larned

Dr. Axtell of Newton, District Councilor, was present and gave a short talk.

The various topics were quite generally discussed by those present.

An elegant dinner was enjoyed by all present, which included the ladies, who were entertained in the afternoon in the city. Dinner was furnished by the Hutchinson fraternity, who also arranged a short literary and entertainment program, consisting of readings by Dr. H. R. Ross of Sterling; Scotch songs by Dr. J. A. Dillon of Larned, and a very clever dancing exhibition by a group of small girls, pupils of a Hutchinson instructor whose name we failed to secure. A first class orchestra furnished music for the evening.

The invitation of the Pawnee County Society to hold the April meeting at Larned was accepted.

Sentiment seemed unanimous that this was one of the worth-while meetings of the

Society, and that Hutchinson had "gone over the top" in the way she had cared for all details of this successful meeting.

H. R. ROSS, Secretary.

NORTHEAST KANSAS MEDICAL SOCIETY

The fall meeting of the Northeast Kansas Medical Society was held at Topeka, Thursday, November 5, in the Pelletiers Tea Room. The following program had been prepared:

1. Pyelitis in Children
..... Paul E. Belknap, M. D., Topeka
Discussion opened by H. L. Dwyer, M. D.,
Kansas City.
2. Snipe Hunting
..... J. W. Randell, M. D. Marysville
3. Interpretation of the Wassermann Reaction... J. L. Lattimore, M. D., Topeka
Discussion opened by N. P. Sherwood, M. D., Lawrence.
4. A Case of Acute Leukemia in a Child
..... M. T. Sudler, M. D., Lawrence
Discussion opened by Eugene P. Sisson, M. D., Lawrence.
5. Some Salient Points in the Early Diagnosis of Phthisis
..... Lafe Bresett, M. D., Kansas City
Discussion opened by F. L. Loveland, M. D., Topeka.
6. The Psychology of Prostatic Disease..... A. D. Gray, M. D., Topeka
Discussion opened by Karl A. Menninger, M. D. Topeka.
7. X-Ray Examination of the Chest...
... Lewis G. Allen, M. D., Kansas City
Discussion opened by Guy A. Finney, M. D. Topeka.
8. Diabetic Neuritis
..... C. F. Menninger, M. D., Topeka
Discussion opened by P. M. Krall, M. D.,
Kansas City.

The Shawnee County Society gave a complimentary dinner to the visiting guests at 6:15 p. m. There were about seventy-five members in attendance during the meeting.

SHAWNEE COUNTY SOCIETY

Shawnee County Medical Society met at the State Hospital Monday evening, November 2. The following program was presented by the staff of the hospital:

1. Korsakow's Psychosis.... Dr. Chapman
(Clinical case)
2. Metastases from Carcinoma of
Breast Dr. Leland
(Clinical case)

3. Dementia Praecox..... Dr. Doyne
(Clinical case)

4. Demonstration of Pathological Specimens Dr. Perry
(a) Brain Tumor (b) Hypertrophy
of Brain.

EARLE G. BROWN, Secretary.

IN MEMORIAM

Willis Dana Storrs

The Shawnee County Medical Society has again suffered a serious breach in its ranks by the death of one of its most prominent members, Dr. Willis D. Storrs. It is fitting that some expression of our appreciation of his life and character, as well as of our sense of loss, find place in our records.

Dr. Storrs was born in Kansas, in 1870, and spent his life, from early childhood, in Topeka. He died suddenly, October 5th, 1925, of coronary thrombosis, at Rochester, Minnesota, where he had just arrived to attend the clinics.

Dr. Storrs was so long and intimately connected with all our medical activities that he had made for himself a high place in the estimation and affections of his colleagues. His life was characterized by diligent, careful, persistent work. Early in his career he set about making himself a capable, efficient practitioner. He pursued this idea with unremitting perseverance. He aspired not to brilliance and fame so much as to efficiency and thoroughness. He gave his patients the very best he had in him making a comprehensive study of each case and putting forth his best endeavor to bring it to a successful issue. He had attained to true success, in the best sense of the word, and a wide clientele mourns his untimely death.

As a man, he was kind, considerate, fair and generous. He was always ready and willing to come to the aid of his fellows, regardless of pecuniary reward. And his resourceful help was becoming more and more appreciated.

As a citizen, he was always alive to the questions touching the welfare of the community, and was ready, with his money and influence, to support any worthy cause.

In our Society, he was always a faithful member, attending its meetings and participating in its deliberations with more than ordinary regularity. We shall not soon cease to miss him. His sudden and unexpected death, in the very height of his usefulness, came as a profound shock to us, his

fellows, and to the very wide circle of his friends in every walk of life.

The undersigned committee, appointed to submit this appreciative tribute, offers in conclusion the following:

RESOLUTION, That the Shawnee County Medical Society deplores with sincere sorrow, the death of Dr. Storrs; pays tribute of its high appreciation of his sterling qualities as citizen, physician and friend; and extends its deep sympathy to the bereaved wife and relatives.

(Signed) O. P. DAVIS
J. N. BEASLEY
C. E. JOSS,
Committee.

IN MEMORIAM

Dr. W. D. Storrs

By J. E. MINNEY, M. D.

In the death of Dr. Storrs I have lost a friend, Topeka and Kansas have lost one of their best citizens, the medical profession has lost one of its leading physicians and surgeons.

He was my ideal student in the Kansas Medical College where he graduated in 1895.

He was financially a poor student but he had a rich heritage of potentiality, aside from the fruitage of his own endeavors.

He was temperate in his habits, diligent in his studies, and painstaking in all of his college work.

Throughout his whole college course he was an active demonstration of what he proposed to be and became, a great surgeon. Nor did his studies and preparatory labors cease after his graduation, but during his practice he continued to be the same diligent, studious, careful worker. "Why," said he, "I cannot afford to make a mistake if study and careful diagnosis will prevent it."

He was a living example of the saying found in the Book of Proverbs—"Seest thou a man diligent in his business? He shall stand before kings; he shall not stand before obscure men."

But Dr. Storrs stood before greater men than kings. He stood before free, enlightened, intelligent American citizens of whom he was one but he had no peer.

—R—

PERSONALS

Dr. Martin V. Robbins, of Cherryvale, has been appointed physician in charge of

the Armour and Co. and the Fowler Packing Co. at Kansas City.

Dr. Chas. Mays, recently located in Elkhart, has moved to Liberal where he has formed a partnership with Dr. A. M. Morrow, according to an item in the Liberal News.

Dr. John O. Murrin of Atchison has been appointed physician to the State Orphan's Home at Atchison.

Dr. E. B. Gossett, who has been in charge of the Santa Fe Hospital at Ottawa for a number of years, has moved to Leeds, Missouri. The hospital has been closed.

Dr. Wilfred Cox has moved from Anthony to Wichita where he is located at 613 First National Bank Building.

Dr. S. P. Loomis, formerly located at Lost Springs, has purchased the Virginia Hotel at Herington and will convert it into a hospital.

According to an item appearing in the Haven Journal, Dr. L. R. Safarik will give up his practice there and probably locate in Denver.

Dr. W. E. Thomson has moved from Stockton to Clay Center and has announced his intention to limit his practice to surgery.

Dr. R. R. Sigler, formerly of Frankfort, Kentucky, has recently located at Macksville, Kansas.

MEDICAL SCHOOL NOTES

The annual Medical Alumni Association's banquet was held at the University Club during the Kansas City Clinical conference and was attended by 135. This was a marked increase over last year and established a new record in attendance. Chancellor E. H. Lindley was the guest of honor and gave a very interesting talk on medical education.

A committee was appointed to draw up a constitution and by-laws in which is to be incorporated a plan for the establishment of a medical loan fund for medical students.

The following officers were elected for the coming year:

Dr. W. O. Quiring of Hutchinson, president.

Dr. J. D. Riddell of Salina, vice president.

Dr. L. G. Allen of Kansas City—re-elected Secretary-Treasurer.

The Association unanimously adopted the following resolution:

Whereas, it has come to the attention of the Alumni Association of the University of Kansas Medical School, that in some quarters sentiment is being expressed in favor of the removal of the present clinical years of study from Kansas City to Lawrence, the Medical Alumni Association desires hereby to go on record as positively opposed to such a move for the following reasons:

First. Patients for clinical instruction who are available in abundance in Kansas City would not be available in Lawrence. The Medical Alumni Association realizes that it is possible to teach the *science* of medicine most any place, but is of the firm belief that the *practice* of medicine must be taught in a city large enough to produce adequate clinical material.

Second. Valuable instruction given in Kansas City by internationally known clinicians, who serve on a part time basis, would not be possible in Lawrence.

Third. An inventory just completed places a valuation of \$817,000.00 on the grounds, buildings and equipment in Kansas City. This would be sacrificed if the school were moved.

Fourth. In 1920 a special committee from the state legislature investigated carefully the present location and unanimously approved it as the logical place to develop the school.

Fifth. Numerous authorities on medical education have been approached on this subject and the vast majority of them are of the opinion that it would be a mistake to move the school.

Sixth. The removal of the school would break faith with Dr. Simeon Bell and his heirs, and with the many alumni, friends and faculty members who willingly and generously gave the money for the purchase of the present grounds.

Therefore, be it resolved, that the Medical Alumni Association of the University of Kansas approve the present location in Kansas City and that it oppose any action to move it.

Be it further resolved that copies of this resolution be forwarded by the Secretary to the members of the Board of Regents and to the Chancellor of the University of Kansas.

Dr. H. R. Wahl has just returned from

the Annual meeting of the American Hospital Association in Louisville, Ky. More than 3000 hospitals in the United States and Canada were represented. Dr. Wahl also attended the recent meeting of the Association of American Medical Colleges in Charleston, S. C.

Dr. O. W. Minor of Garden City was a recent visitor at the Medical School.

Dr. C. W. Keeling of the Deaner Dental Clinic has been appointed instructor in Dental Surgery.

Drs. H. R. Wahl, R. L. Haden and T. G. Orr will read papers at the coming meeting of the Southern Medical Association in Dallas, Tex. They and Dr. R. H. Major will have scientific exhibits at the meeting.

Drs. L. G. Allen and L. L. Bresette read papers at the recent meeting of the Northeast Kansas Medical Society in Topeka.

The Eleanor Taylor Hospital for contagious diseases is to be reopened in the near future.

—R—

BOOKS

Physiotherapy, Theory and Clinical Application. by Harry Eaton Stewart, M. D., President-elect, American Academy of Physiotherapy etc. Published by Paul B. Hoeber, Inc., New York.

The author considers physiotherapy as an invaluable adjunct to other methods of treatment. Attention is given particularly to the proper selection and technical application of the form of physiotherapy to be used in the proper cases. Technique is an essential element in physiotherapy. The author endeavors to simplify the technique so that physicians may more readily understand it. The illustrations are ample for thorough understanding of the methods described.

The Art of Medical Treatment. By Francis W. Palfrey, M. D., Visiting Physician, Boston City Hospital; Instructor in Medicine, Harvard University. Octavo of 463 pages. Philadelphia and London. W. B. Saunders Company, 1925. Cloth \$4.50 net.

It has been sometime since a real textbook on treatment has been published. This one will meet the requirements, or at least the wants, of a good many practitioners. It tells one just how to treat a case, what to feed the patient, what medicines to give, when and how to give them, and all the details of the management. The author makes no attempt to suggest new methods or new medicines but simply outlines the treatments in common use.

The Development of our Knowledge of Tuberculosis by Lawrence F. Flick, M. D., Philadelphia, Pa.

This is a very complete review of all the various theories of tuberculosis beginning with the ancient Greeks. The discussion on the various problems connected with this disease the author has reported with care and thoroughness. The compilation of all of these discussions represents an endless amount of work and should be highly appreciated by all those in the profession that are particularly or generally interested in the subject.

Objective Psychopathology, an introduction to, by G. V. Hamilton, M. D., Director Psychobiological Research, Bureau of Social Hygiene, Inc., New York. Published by C. V. Mosby Co., St. Louis, Mo. Price \$5.00.

Generalizing from some of the author's statements; disturbances of the human reactive equipment reflect faults in the development of identifiable responsive properties of the personality, and we gather that in this book he endeavors to present methods for the identification of such properties. He hopes that in time psychopathologic research will make possible the construction of textbooks devoted to systematic accounts of the human personality as an integration of adjustive functions, each of which may be regarded as playing a recognizable role in the determination of total response to particular types of situations.

The Medical Clinics of North America (Issued serially, one number every other month). Volume IX, Number II, New York Number, September, 1925). Octavo of 271 pages, with 24 illustrations. Per clinic year, (July 1925 to May 1926) Paper, \$12.00; Cloth, \$16.00 net. Philadelphia and London. W. B. Saunders Company.

The first article in this number by Cecil and Hansson on physical therapy in chronic arthritis will be interesting to a large number of readers. Another subject of general interest, liver disease caused by heart defects, is discussed by Harlow Brooks. Nellie B. Foster presents the clinical picture of cholecystitis induced by bacterial endocarditis. Gastro-intestinal neuroses is the subject of a paper by Arthur L. Hollard. Earnest P. Boas talks about rheumatic heart disease. Anderson discusses syphilis of the central vascular system and Kreetzer tells about the nervous run-down patient. There are other, just as interesting articles in this number of the clinics.

The Surgical Clinics of North America (Issued serially, one number every other month.) Volume V., Number IV. (Chicago Number—August 1925.) 246 pages with 54 illustrations. Per clinic year (February 1925 to December 1925.) Paper, \$12.00;

Cloth, \$16.00 net. Philadelphia and London. W. B. Saunders Company.

The clinic of Dr. Arthur Bevan on the surgery of the spleen has first place. A. J. Ochsner has a clinic on gas bacillus infection originating in a gangrenous appendix. Carl Beck presents some rare brain lesions. David C. Straus shows cases of kinks of the neck of the gall bladder and the beginning of the cystic duct. Maurice Bernstein presents a consideration of peripheral nerve injuries. Gatewood gives an analysis of the results obtained in gastric surgery. Edmund Andrews describes a simplified herniotomy. Miller and Brown present cases of chronic duodenal ileus. These are but a few of the interesting subjects discussed in this number of the clinics.

Kidney Diseases and High Blood Pressure, Treatment of, by Frederick M. Allen, M. D., Part 1—Published by the Physiatrie Institute, Morristown, N. J.

The author says: "Renal-vascular diseases constitute the leading present day medical problem as respects both prevalence and apparent increase of morbidity and mortality." He attempts to present the subject in simple form for the practicing physician. The discussion is clear and definite. The management is carefully detailed. The laboratory methods are carefully explained.

Gynecologic Urology by Lynn Lyle Fulkerson, A. B., M. D., Assistant Professor of Gynecology, New York Post Graduate Medical School, etc. Published by P. Blakiston's Son & Co., Philadelphia, Pa.

This book, as stated by the author, is devoted to the technique of endoscopy and cystoscopy in the female and the diagnosis and treatment of the commoner diseases of the urological tract. The author has fulfilled his purpose very thoroughly and produced a very clear and detailed description of the instruments used and methods for their use, tests to be employed and instructions for making them, conditions that may be found and directions for their treatment. Excellent illustrations simplify the interpretation of the text.

Feeding and the nutritional disorders in infancy and childhood, by Julius H. Hess, M. D., Professor and Head of the Department of Pediatrics, University of Illinois College of Medicine, etc. Fourth edition. Published by F. A. Davis Co., Philadelphia, Pa.

The author has gone quite thoroughly into the principles of infant feeding and in this edition has established a basis for the preparation of diets which maintains an absolute relationship between the quantities of the individual food elements of the

diet; fat, protein, carbohydrate, salts and water, and the requirements for growth and development of the infant, per pound or kilogram body weight independent of the size and frequency of the feedings. Many of the chapters have been revised.

Physiologic Chemistry, an intermediate text book with experiments by C. J. V. Pettibone, Ph. D., Associate Professor of Physiologic Chemistry, Medical School, University of Minnesota. Third edition. Published by C. V. Mosby Co., St. Louis. Price \$3.25.

This is intended for a text book and is well adapted for the instruction of medical students in this subject. Some new material has been added and the whole work has been revised.

The Medical Follies by Morris Fishbein, M. D. Editor of the Journal of the American Medical Association, etc. Published by Boni & Liveright, New York.

As stated on the title page this is an analysis of the foibles of some healing cults, including osteopathy, homeopathy, chiropractic, and the electronic reactions of Abrams with essays on the antivivisectionists, health legislation, physical culture, birth control, and rejuvenation. Many of these articles have been published in magazines or medical journals. They are interesting and present the status of the medical cults in a very satisfying manner to the professional reader. The author is a very pleasing writer and has a way of stating facts that carries conviction. It would be a good idea for every physician to have a copy of this book on the table in his office.

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The Wasserman Reaction and the Patient

The results of the routine treatment of 1,170 cases of syphilis are set forth by Frank C. Knowles, John B. Ludy and Henry B. Decker, Philadelphia (Journal A. M. A., Oct. 24, 1925). Of the 1,170 cases of syphilis admitted for treatment, eighteen weeks' treatment was completed in 380, and forty weeks in 116; treatment lapsed in 790. Of those patients in whom at least one course of treatment was completed, 244 originally had a strongly positive Wassermann reaction; seventy-four, moderately positive; twenty-six, weakly positive; two, doubtful, and thirty-four negative. After eighteen weeks of treatment the reactions of sixteen were strongly positive; of twenty-two, moderately positive; of 142, weakly positive, and of 200, negative. Of the 116 in whom forty weeks' treatment was completed three had strongly positive reaction; eight, moderately positive; fifty-one, weakly positive and fifty-four, negative. Treat-

ment lapsed in 474 patients during the course of neoarsphenamin and in 316 during the course of mercuric salicylate. A little more than one third of the patients were women. Only fifteen children were treated in this series. More than one half of the patients (65 per cent) were negroes, and many of the others were of the lowest social stratum and seafaring men. It is indeed unfortunate that less than one third of the patients completed eighteen weeks treatment and only one tenth forty weeks, notwithstanding a follow-up system of letters and visits made by a competent full time social service worker and her assistant.

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Federal Maternity and Infancy Act.

Examination of nearly 600,000 infants and pre-school children at 26,353 child-health conferences during the fiscal year 1924 and 1925 was reported to the Children's Bureau of the U. S. Department of Labor by States co-operating under the Federal Maternity and Infancy Act, according to a statement made public here today.

Forty-three States and Hawaii are co-operating under this Act, which provides Federal aid for the promotion of the welfare of mothers and babies, Vermont, Louisiana and Rhode Island having accepted during the fiscal year 1925. States not co-operating are Connecticut, Illinois, Kansas, Maine, and Massachusetts. The Children's Bureau made public today an official report covering the State accomplishments during 1924, together with preliminary figures for 1925.

These figures show that, in addition to the examination of babies and young children at the child-health conference, maternity and infancy activities during 1924 and 1925 included the holding of 9,669 prenatal conferences attended by approximately 75,000 women, classes for midwives with a total attendance of approximately 40,000, the holding of mothers' classes with an attendance of more than 162,000 mothers, and the organization of over 5,000 "little mothers" classes. The number of child-health centers established was 1,706; the number of prenatal centers, 245.

Although centers are for "well babies," the report states, defects are frequently found which require correction before the child is free to gain a maximum of physical fitness. Defects most frequently encountered are refractive errors in the eyes, naso-pharyngeal growths and abnormalities, orthopedic defects, glandular enlargements or insufficiencies, dental caries, malnutri-

tion (always the large percentage in every group). Children are always referred to family physicians for the correction of these defects, if there is a physician. A few States have arranged for clinics at which defects may be corrected by a staff physician or a specialist. Some States furnished estimates of defects corrected during 1924, ranging usually from 20 to 40 per cent.

Other important activities under the Act include home visits by nurses in sparsely settled country where health conferences are not possible, nutrition work for expectant mothers and for children, efforts to make good confinement and postnatal care possible for mothers, inspection of maternity and infant homes, improvement of birth registration, the distribution of silver-nitrate solution to prevent ophthalmia neonatorum (blindness of the newborn), antidiphtheria campaigns, campaigns to have all pre-school children examined before school entrance, general educational work.

The Children's Bureau also reports as to the cost of the Act and the total appropriations, National and State, spent in accordance with its provisions. The Act authorizes \$1,240,000 annually for five years, (the five-year period ends June 30, 1927) \$50,000 of which may be spent by the Children's Bureau for administrative and investigating purposes. From 1924 appropriations the States accepted \$918,280, from 1925 funds, (up to October 1, 1925) \$949,827. During the fiscal year 1924, the Children's Bureau spent for administrative and investigating purposes, \$35,578; during 1925, \$42,972. Estimates on a per capita basis show that Federal appropriations for maternity and infancy work cost annually less than one cent per inhabitant of the United States.

Commenting on the report of work done under the Act, Grace Abbott, chief of the Children's Bureau, said:

"The provisional figures for 1924 of the vital-statistics division of the Bureau of the Census indicate a substantial drop in the infant death rate for both urban and rural communities in the United States birth-registration area; but even with this improvement the infant death rate in the United States is higher than in Australia the Netherlands, Norway, Sweden, and the Irish Free State, and no State in the United States birth-registration area has so low a rate as New Zealand. It is quite evident, therefore, that the United States can not afford to slacken its interest or reduce in any way the intelligent expenditure of

funds to lower the death rate among babies.

"A report on maternal mortality, which will be published soon by the Bureau, shows that a very high percentage of the losses are due to preventable causes. It is, therefore, especially important that the program for prevention of the unnecessary deaths in childbirth should be pushed. Here, too, the United States lags behind many countries. Demonstrations of successful methods of conducting prenatal clinics have been made in many places under the maternity and infancy act. A beginning has been made in getting a State program of work understood and actually under way in some communities. On the basis of this experience an expansion of the work can economically be undertaken.

"Last year the benefits of the maternity and infancy act were extended to Hawaii. The high death rates in Porto Rico and Alaska also make assistance from the United States of special importance.

"The United States government is expending at the present time less than \$1,000,000 a year in subsidies to the States for the promotion of a health program for mothers and babies. Great Britain is expending nearly five times that amount in 'grants in aid' to local communities for maternity and child health, enabling the 'health visitors' to reach an estimated 89 per cent of the children born in a year in England and Wales and 13 per cent of the expectant mothers."

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The Pathology of Peptic Ulcer of the Stomach

Howard T. Karsner, Cleveland (*Journal A. M. A.*, October 31, 1925), reviews extensively the literature and concludes that pathologically peptic ulcer is an inflammatory—perhaps primary—lesion so situated that gastric juice probably emphasizes the destruction of tissue. Various predisposing causes seem to be operative in the patients, but these are not conclusively established. The direct exciting cause of the ulcer has not yet been disclosed in such a fashion as to be beyond doubt. The persistence or chronicity of the ulcer depends on a variety of factors, none of which can be said to operate in all cases. Probably several of these factors are coincidentally in evidence. Thus, there must be considered especially hyperacidity, stasis of neuromuscular or obstructive origin, the irritative and traumatic influence of gastric contents, and the traction of muscle about the ulcer.

Defective Eyesight.

Defective eyesight is affecting the country's industrial output, is handicapping education, and is a growing menace to human welfare, it is asserted by the Eye Sight Conservation Council of America in a comprehensive eyesight survey of two years duration covering the entire field of eyesight conservation. The deleterious influence of eye defects and eye diseases, it is declared, is a challenge to civilized effort in social control.

Massing all existing data, and supplementing it with the results of original research, the Council finds that defective vision is widespread among industrial workers and school children, and that it is a prolific source of waste in both industry and education.

Summarizing conditions in education, the report, called the most comprehensive of its kind ever completed in this country, says that 25 per cent of the school children in the public schools of the United States "have manifest defects of vision and symptoms of eyestrain." This result was reached through simple visual acuity tests.

The survey, it is stated, covers eye tests of more than 14,200,000 school children and students enrolled in public schools, state normal schools, universities and colleges.

"Reports of State Departments of Education and State Boards of Health since 1907 furnished data covering 9,023,000 eye examinations of public school children," said the report explaining the basis upon which it concludes that a situation justifying alarm exists.

"Various municipal and rural reports since 1907 cover 4,300,000 examinations in public schools; while the most recent statistics have been furnished directly in reply to inquiries sent to public school authorities of 247 of the largest cities in the country, to the 300 state normal schools and teachers' colleges, and to the 750 colleges and universities in the United States."

The survey of 247 city schools provided statistics of the results of testing the eyes of 863,936 children. Of this number, one group of 483,154 shows, according to the report, that 21.9 per cent had defective vision. A similar conclusion, it is said, was reached by the Federal authorities.

Defective vision is increasing among older students, the survey in colleges and normal schools indicates. In sixteen state normal schools and twenty-three colleges and universities having a total enrollment

of approximately 100,000 students, 54,695 tests were made, showing that 18,706 or 40 per cent had defective vision.

Two-thirds of those reporting found defective vision within the range of from 35 to 50 per cent. "It is safe to assume," says the report, "that this prevalence of defective vision among these students at the beginning of their university studies was undoubtedly higher than prevailed with these same students in their earlier years."

Poor eyes, it is disclosed, induce retardation and are responsible in some measure for the backward students. "The proportion of retardation found among four groups of school children with defective vision, totaling 28,667," the report continues, "varies from 60 to 85 per cent and averages 67 per cent. The prevalence of defective vision, found among six groups of pupils retarded in their progress, varies from 12 per cent to 81 per cent."

Eyesight, as an important factor affecting the output of the industries of the United States, is being overlooked, the report asserts. A survey was made to determine the prevalence of visual defects among industrial workers and the methods practiced by industrial concerns for examining the eyes of their employees.

Information was furnished by 170 companies located in 23 states and employing over 1,000,000 persons. The data furnished by 40 companies was complete enough for adequate summary and comparison.

"The records of these 40 companies," the report adds, "cover the examinations of the eyes of 204,817 employees. The kinds of tests used vary from the very simplest to thorough eye examinations.

"Even though the prevalence of defective vision was reported by one company as low as 5.3 per cent, which is no indication of the true condition, the average proportion of defective vision as reported by the 40 companies was 44.3 per cent.

"The records from 20 companies of 150,782 eye examinations or 77 per cent of the 204,817 examinations reported showed the prevalence of defective vision ranging from 48.3 per cent to 79.2 per cent and averaging 54 per cent.

"This group of 200,000 industrial eye examinations is many times larger than any group that has previously been studied for the purpose of arriving at definite conclusions.

"It is considered sufficiently large and properly distributed both geographically and according to the type of industry to

establish an accurate incidence of the proportion of defective vision among the 42,000,000 gainfully employed persons in the United States."

Sections of the report, compiled by Joshua Eyre Hannum, research engineer of the Eye Sight Conservation Council of America, and edited by Guy A. Henry, the Council's general director, deal with eye hygiene, eye diseases, eye defects, eyesight and education, eyesight and occupation, eye protection, and illumination of school and home.

One section tells of the struggles with poor eyesight of noted persons, including Francis Parkman, Tschalkowsky, George Eliot, William Wordsworth, Theodore Roosevelt, Goethe, Margaret Fuller, Jonathan Swift, John Greenleaf Whittier, H. G. Wells, Honore de Balzac, Adelaide Ristori, Basil King, Taine, and Nietzsche. Whittier, it is said, was color blind, and Taine was cross-eyed. Relentless use of the eyes, according to the report, hastened the death of Balzac.

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The Physicians' Home, Inc.

Announcement was made today by President Robert T. Morris, M. D., of The Physicians' Home, Inc., that an endowment campaign has been started by the Directors of the Home for the purpose of raising funds to endow a *national home* for aged and incapacitated physicians who are left without financial resources in the autumn of life.

The sum sought for the home has not yet been determined, but it should run into several millions of dollars, so as to guarantee the upkeep, through interest, of the national home and the several smaller units to be placed in the different states as may be determined later.

The Physicians' Home, Inc., is not an experiment in any sense. Four years ago one unit was established at Caneadea, N. Y., through the generosity of Dr. Stephen V. Mountain, who generously donated the property and building at Caneadea, N. Y., and it has met with such great success that the directors believe it their duty to enlarge the scope of the enterprise, because of the large waiting list which they are unable to accommodate at the Caneadea unit.

The general plan outlined by Dr. Robert T. Morris and his associates, is to care for a thousand or more physicians at the na-

tional home and a dozen or more individuals in the smaller units.

At the present writing it would seem that a million and a half or two million dollars would be necessary, which sum would be invested in bonds of the securest and highest earning value, so as to secure an adequate return in interest to maintain the home and the units without recurring appeals to the medical profession or to the lay-man and woman.

The directors have in mind certain properties that will be had through gift or purchase. The character of the directors is such that the project is guaranteed as to its worthiness and feasibility.

The directors have had the project of a national home in mind for several years, but being practical men they thought they would try it out in the unit established at Caneadea, N. Y., and the success of this unit has been such that they now feel the time is propitious for a national campaign to which the medical profession will be asked to subscribe as their circumstances permit and public spirited citizens also will be asked to contribute.

The plan of campaign is not in any sense a "drive." The funds are to be secured through the organization of interested groups in the various cities and towns, and it will take probably a year in this way to put over a campaign that will be dignified and in accordance with the high standard and ethics of the medical profession.

Dr. Charles H. Mayo of Rochester, Minn., has given his unqualified endorsement to the movement and is heading the committee of sponsors who will have the campaign in charge. Other prominent physicians and lay-men will also serve as sponsors.

The officers and directors of The Physicians' Home, Inc., are Robert T. Morris, M. D., President, 114 East 54th Street, New York, N. Y.; William H. Dieffenbach, M. D., Vice President, 50 Central Park West, New York, N. Y.; Albert G. Weed, M. D., Treasurer, 152 West 57th Street, New York, N. Y.; Silas F. Hallock, M. D., Secretary, 901 Lexington Avenue, New York, N. Y.; Warren Coleman, M. D., 59 East 54th Street, New York, N. Y.; Max Einhorn, M. D., 20 East 63rd Street, New York, N. Y.; Wolff Freudenthal, M. D., 24 W. 88th Street, New York, N. Y.; J. Richard Kevin, M. D., 252 Gates Avenue, Brooklyn, N. Y.; Stephen V. Mountain, M. D., Olean, N. Y.; Ralph Waldo, M. D., 54 West 71st Street, New York, N. Y.

The campaign will be in charge of Mr.

Charles Capehart and Mr. James F. MacGrath, and the national headquarters have already been opened on the 22nd floor of the Times Building at 42nd Street and Broadway, New York City, to which all inquiries should be sent.

All checks should be drawn to the order of "The Physicians' Home, Inc.," and should be forwarded to Dr. Albert G. Weed, National Treasurer, 22nd floor of the Times Building, 42nd Street and Broadway, New York City.

This is the first movement of its kind for physicians in America seeking to secure funds, the income from which will sustain an institution or a series of institutions, having for their purpose the care of those in the medical profession who through generosity, unpaid service, or who through their devotion to the pure science of medicine and laboratory investigation with its small financial return, or who through illness or incapacity find themselves in their declining years unable to provide themselves and their dependents with the necessities of life.

Of course, the medical profession has its percentage of those who have not had the training or opportunity to lay away sufficient money to finance them in their old age. Then, there are those who have not had the habit of collecting their bills, and who have suffered thereby; and it also will include the younger men in the profession, who, falling ill, have no place to go and none to care for them during their illness. To these latter this home and its units will prove a great blessing and God-send in administering to their needs until they regain health and can again take up the work of their profession.

This is not intended as a pauperizing movement, nor is the campaign to be one in which there is to be a "sob-element." It is rather to be a dignified effort on the part of the profession itself to take care of its own needy ones and who ask the co-operation of the generous and well-to-do lay-man and woman to help.

From time to time we shall take pleasure in publishing the news of the campaign as it proceeds and it is our earnest hope that the medical profession will answer the call and will send generous contributions to the National Treasurer without waiting to be solicited. further.

In no case more than in this appeal can one more definitely give twice by giving what he can quickly. The sooner funds are

received the sooner the enterprise will be serving the deserving physicians.

The name tentatively selected for the Home is "Tranquillity"; a name that adequately defines peaceful comfort to all found within its walls.

The general plan is to have the Home so laid out that it will typify a real home within which are to be found all those little creature comforts essential to the peace of body and mind of those who are to be the beneficiaries.

One of the features will be a laboratory where the old physician may continue his investigations and study, and thus give him an opportunity of employing head and hand and heart for the advancement of his profession.

Another feature of the Home will be provision for the wife or other dependents of the physician so that families may not be broken up.

It is anticipated that the campaign will be inaugurated by a banquet in New York City to which the profession generally will be invited, as well as prominent lay-men and women.

Speakers of national repute and standing will launch the enterprise.

—R— "Biological Products"

This term, as commonly understood, means simply serums, or serums and vaccines. There are many other biological products, but these two predominate in professional estimation of the class as a whole. The manufacturers of serums and vaccines are licensed by the Federal Government after due investigation of the equipment, material and personnel of the plant. This ensures the quality of the finished product, up to a minimum standard.

But there is competition among the different manufacturers, and the best selling point is not simply that the goods are up to standard, but that they are better than the law requires, as good in fact as the latest discoveries in applied bacteriology render possible. Equipment above and beyond the minimum is a great advantage, and long experience is another. To give his patient the best possible service, the physician should, if he thinks there is any difference between one manufacturer's product and that of another, specify his preference in ordering supplies.

Our readers should not miss Parke, Davis & Company's advertisement headed "Difference in Biological Products," which appears in this issue.

Hypodermic Digitalis Preparations

Harold E. B. Pardee, New York (Journal A. M. A., Oct. 31, 1925), found, in the course of using intravenous injections of digitalis preparations in the treatment of patients with cardiac decompensation, that the manufacturers' claims as to potency, and particularly their recommendations as to dosage, were far from correct. It has never been properly demonstrated that any of these supposed advantages of the intravenous use of digitalis are actual facts, and so it seemed advisable to investigate the activity of these preparations. It seemed especially important because they are commonly and widely used in the most severe cases and in emergencies, when the difference between a sufficient and an insufficient dose might be vital to the patient. It seemed best to do the whole work with the human heart, using the change in the T wave of the electro-cardiogram as an indicator of digitalis activity and also the showing of the rate of a previously untreated auricular fibrillation. These two are the earliest digitalis effects to appear after the administration of a sufficient dose of the drug, and the use of the T wave change as a method of testing various tinctures of digitalis has been previously reported on by the author. He used as a measure of the potency of a digitalis preparation the smallest dose that will diminish the amplitude of the T wave, calling this the T wave unit. He has expressed this dose in fractions of a minim per pound of the patient's weight, because Eggleston's demonstration of the relation of body weight to digitalis dosage has been well proved by experience. It was found that the clinical activity of the different tinctures tested was inversely proportional to the size of the dose that would effect the T wave. Less of the more potent tinctures would be needed than of the weaker ones. At present he reports on the testing of digifolin Ciba, the digitan ampules of Merck, digalen tablets of amorphous digitalin. The minimal effective dose of each of these preparations was found to be much larger than suggested by the manufacturer for the therapeutic dose, so much larger that if the printed suggestions as to dosage were followed the patient would certainly fail to receive an effective dose, and so to benefit from the medication. In the case of tincture of digitalis by mouth it has been found that the full therapeutic dose was from eight to ten times the minimal effective dose as

determined by the T wave change. He does not believe it is ever proper to give the full calculated therapeutic dose of a digitalis preparation at one time, because of the likelihood of producing a considerable degree of poisoning in some susceptible patients. One half of the amount by mouth, four or five times the minimal effective dose, is safe, however, and will produce definite digitalis effects. This works out to about 1 minim per pound of the liquid preparations, slightly more for the digifolin and digalen than for dititan, and 4/100 grain of the digitalin per 70 pounds, which would be eight of the 1/100 grain tablets for a patient to 150 pounds. It is always necessary, when suggesting large doses of any digitalis preparation, to emphasize the need of making certain that the patient has not been receiving digitalis in any form during the previous two weeks. The drug is sometimes so slowly eliminated that a patient may retain an unexpectedly large proportion of a previous dose, and the additional effect of the latter dose may cause unpleasant toxic symptoms. The doses here recommended are only for patients who have not had any digitalis within the previous two weeks. For patients who are under the influence of digitalis at the time, the dose should be reduced to one quarter or one half of that recommended, to from 30 to 60 minims, depending on the estimate of the degree of the patient's previous digitalis saturation. This reduced dose should be repeated at six hour intervals if needed. Further observations are needed to settle the question of promptness of action. The facts just noted make it seem likely that it is more dependent on a mass effect of digitalis—the large size of the dose—than on the greater promptness with which the drug comes in contact with the heart muscle after intravenous administration. We must not rely then on minimal intravenous doses when in need of a prompt effect, though it is possible that somewhat smaller doses are needed by vein than by mouth.

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Council on Physical Therapy

REPORT OF ORGANIZATION MEETING

The Council on Physical Therapy held its first meeting, for organization purposes, at the headquarters of the American Medical Association on Friday, October 16. The Council is composed of two physicists, four physiologists and two pathologists.

There were in attendance at the meeting: Dr. W. T. Bovie, assistant professor of bio-

physics, Harvard University, Boston; Dr. Arthur Compton, professor of physics, University of Chicago; Dr. Ralph Pemberton, internist, Philadelphia; Dr. Harry E. Mock, assistant professor of surgery, Northwestern University Medical School, Chicago; Dr. Arthur U. Desjardins, department of radium and roentgen-ray therapy, Mayo Clinic, Rochester, Minn.; Dr. George Miller MacKee, associate professor of dermatology and syphilology, Columbia University College of Physicians and Surgeons, New York; Dr. W. B. Cannon, professor of physiology, Harvard Medical School, Boston; Dr. A. S. Warthin, professor of pathology, University of Michigan, and Dr. Francis Carter Wood, pathologist, director of the Institute of Medical Research, Columbia University, New York; also the *ef-officio* members: Dr. Olin West, Secretary and General Manager of the Association, and Dr. Morris Fishbein, Editor.

The major portion of the discussion was devoted to the scope of the work of the Council and methods of procedure. Three committees were appointed: (1) committee on organization; (2) committee on education; (3) committee on field, scope, nomenclature and present status of physical therapy. The last mentioned committee will have charge of the preparation of a series of fundamental reports on therapeutic methods and on the apparatus used for carrying out such methods. These three committees are to formulate reports for presentation at an early meeting of the Board of Trustees.—*Jour. A. M. A.*, Oct. 24, 1925.

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Immediate Metabolic Disturbances Following Deep Roentgen-Ray Therapy

In the study made by Howard P. Doub, Adolph Bollinger, and F. W. Hartman, Detroit (*Journal A. M. A.*, Oct. 24, 1925), of 150 patients treated with a modern deep therapy apparatus, including a water cooled tube, a high percentage of acute irradiation sickness was found, especially in those cases treated over the chest, pelvis and abdomen. The treatment of this reaction, as described by various workers, differs markedly probably because theories as to the etiology of the illness are so varied. The rapidly developing alkalosis, and the continuation of this condition after large doses, are confirmed by the determination of the pH of the plasma and of the urine and by the use of indicators in the tissues. That this alkalosis is not a result of tissue oxidation or washing out of carbon dioxide is demon-

strated in the study of the expired air of patients collected before irradiation and within a two hour period after irradiation. After the establishment of roentgen-ray dosage which invariably produces the acute illness in dogs, various agents for counteracting it were tested. Of these agents, hydrochloric acid, ammonium chlorid and sodium chlorid had but little effect. Ammonium chlorid and hydrochloric acid may combat completely the resultant alkalosis, but the experimentally produced irradiation sickness in dogs was not relieved by these drugs, demonstrating the fact that alkalosis is not the only factor concerned in irradiation sickness. Calcium chlorid, calcium, lactate and morphin were beneficial in preventing or alleviating the symptoms. Morphin invariably prevented the reaction in dogs and was helpful in patients treated over the abdomen, in whom the treatment was invariably followed by irradiation sickness when unprotected.

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Significance of Normal Spinal Fluid in Cases of Neurosyphilis

Attention is called by Paul A. O'Leary and Marque O. Nelson, Rochester, Minn., (*Journal A. M. A.*, Oct. 24, 1925), to the fact that neurosyphilis may be clinically progressive in the presence of completely negative serology. Continued treatment for the symptoms that persist after spinal fluid has become negative is attended with benefit in 10 per cent of the patients whose spinal fluids reversed to normal as a result of treatment, and in 45 per cent of those in whom the spinal fluid reversed without treatment. A single negative spinal fluid report in the clinically positive but asymptomatic neurosyphilitic is not sufficient evidence to warrant the discharge of the patient as cured. Spinal fluid examinations in addition to complete physical examinations should be made at yearly intervals, or therabouts, in the neurosyphilitic patient whose spinal fluid has reversed to normal as a result of or without treatment. Although our present knowledge on the subject of the significance of negative and positive spinal fluid findings in neurosyphilis is far from complete, we are justified in seeking to obtain a reversal of the serology to negative by the present day modern methods of treatment, bearing in mind that a small percentage of the well treated cases will have persistent symptoms irrespective of the serologic results. The type and severity of the persistent symptoms, when con-

sidered in conjunction with the patient's general condition, offer the best guide as to the value of continued treatment in the serologically negative neurosyphilitic. Because the serology has been found to reverse to positive, and the clinical signs of the disease develop in the asymptotically and serologically negative neurosyphilitic, it hardly seems justifiable to allow these patients to rely solely on their own resistance mechanism, something about which we know very little.

—R—

Effect of Treatment on Spinal Fluid in Cerebrospinal Syphilis

Uno J. Wile and Harther L. Keim, Ann Arbor, Mich., (Journal A. M. A., Oct. 25, 1925), report on a critical analysis of 1,000 spinal fluid examinations which have been made in 148 cases that they have been able to control, first, from the standpoint of clinical betterment or the reverse, and further, in which they have been able to check each test by a triple examination. In other words, every spinal fluid in this series of study has had two Wassermann reactions done, one with incubation of one hour checked against an eighteen hour incubation, and both of these checked against a Kahn precipitation test on the spinal fluid. The majority of these cases have been those in which repeated lumbar punctures have been made in the course of the intensive treatment. Of the 148 cases studied, thirty-nine are classified as paresis; twenty-seven, as tabes; nineteen, as early diffuse cerebrospinal syphilis, and sixty-three as the late type of diffuse cerebrospinal disease. The treatment that these patients have had has consisted of the intravenous administration of the arsphenamin derivatives; intraspinal treatment employing the method of direct treatment, which has been used by them for the last fifteen years; tryparsamide; mercury ordinarily in the form of inunctions; potassium iodid by mouth, and, in a few selected cases, bismuth in place of mercury. The largest amount of treatment is found in a patient who received a hundred intravenous treatments of arsphenamin during the past two years (not from them). On the other hand, in one case, the intravenous administration was limited to as small a number as two injections, plus other forms of therapy. On the average, leaving out the amount of treatment that the patients had received prior to their admittance, all the patients of this group have had several

months of intravenous treatment, either with arsphenamin or with tryparsamide, also intradural treatment, and all had received a considerable amount of mercury over several months. Twenty-six of the entire number have been under observation and treatment from two to five years. The results may be summarized as follows: Deviations from the normal in the spinal fluid, in acute cases of cerebrospinal syphilis occurring during the evanthesmatous period, tend to be reduced to normal, parallel with clinical improvement following intensive treatment. This tendency toward normality in the abnormal spinal fluid is less noticeable in diffuse cerebrospinal syphilis occurring in the period of latency or with recurrences. In cases of parenchymatous disease of the cerebrospinal system, notably in tabes and paresis, there is little or no simultaneous tendency toward a reduction of the diseased fluid to the normal, even in cases in which clinical improvement is striking. The most easily influenced constituent of the diseased fluid in all types of cases is its lymphocytic content; less easily influenced, although still reducible in the acute cases, is the increase in globulin and albumin. The colloidal gold curve may be reduced to normal in the early cases, but is influenced with difficulty by treatment in the later phases of the disease. The least influenced by treatment in the series of cases is the Wassermann reaction. This tends to be reduced to normal in the very early or acute cases, but seems to be uninfluenced and more likely to be fixed in the late cases than any other of the changed constituents of the spinal fluid.

—R—

Efficiency of Mercury-Vapour Lamps.

We have received from Dr. Frederick W. Alexander, medical officer of health for the borough of Poplar, a special report issued by him on methods of gauging the intensity of ultra-violet rays from artificial sunlight lamps. The booklet is entitled Practical Artificial Light treatment, and may be obtained from the Public Health Offices, Bowroad, E.3. Dr. Alexander says that as the ultra-violet radiations from quartz mercury-vapour lamps begin to fall off from the first day they are brought into use, it is most desirable to have a simple means of measuring their efficiency. Brilliancy is not a reliable guide. After referring to the erythema-dosimeter and the Avetone methylene-blue gauge and the views of Dr. A. Eidinow and Dr. Leonard

Hill (The Lancet, 1925, ii., 317), he describes a simple apparatus for daily use which depends on the production of fluorescence on a uranium screen by ultra-violet rays which have passed through a Chance filter. He also records results of exposing photographic printing-paper to the rays of a standard lamp when different filtering media are employed. The results obtained with a lamp to be tested may be compared with the standard—The Lancet.

—R—

Increase in Death Rate

The death rate for Oregon in 1924, according to the Department of Commerce, was 1,139 per hundred thousand of population, as against 1,094 in 1923. The increase was due largely to increases in diseases of the heart and in nephritis, cancer, measles, diabetes and diphtheria.

—R—

Infantile Paralysis Epidemic

Following a conference of the city health officer of Louisville, Ky., with physicians, an order was issued closing the public schools, October 22, on account of an outbreak of infantile paralysis in that city. There had then been, it is reported, nineteen cases and four deaths. There were six cases of infantile paralysis in Owensboro also, October 22, with two deaths.

—R—

Required by the Act of Congress of August 24, 1912, of the Journal of the Kansas Medical Society, Published Monthly at Topeka, Kansas, for October 1, 1925.

State of Kansas, County of Shawnee, ss.

Before me, a notary public in and for the state and county aforesaid, personally appeared W. E. McVey, who having been duly sworn according to law, deposes and says that he is the editor of the Journal of the Kansas Medical Society and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in Section 443, Postal Laws and Regulations, printed on the reverse of this form, to-wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

Name of	Post Office Address
Publisher—W. E. McVey, under direction of the Council of the Kansas Medical Society.....	Topeka, Kansas
Editor—W. E. McVey.....	Topeka, Kansas
Managing Editor—None.	
Business Manager—None.	

2. That the owners are: (Give names and ad-

resses of individual owners, or, if a corporation, give its name and the names and addresses of stockholders owning or holding 1 per cent or more of the total amount of stock.)

Kansas Medical Society, F. A. Carmichael, Osawatimie, Kansas, President; Dr. J. F. Hassig, Kansas City, Kansas, Secretary; Dr. Geo. M. Gray, Kansas City, Kansas, Treasurer.

3. That the known bondholders, mortgages, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholders or security holder appears upon the books of the company as trustee or in any other fiduciary relations, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is: (This information is required from daily publications only.)

W. E. McVEY, Editor.

Sown to and subscribed before me this 23rd day of September, 1925.

EVANGELINE INGERSOLL,

(Seal)

Notary Public.

(My commission expires April 15, 1929.)

—R—

Examination of a half million school children proved that physical defects occur more frequently in rural than in urban pupils.

FOR SALE—Central S. Dakota—General practice averaging \$6,500.00 for ten years, with or without modern office building, county seat modern town of 1200. Main line railroad. Appointments transferable. Protestant not over 35 desired. Will sell all or one-half and other half in six months. Only first class man considered. Price upon application. Address Lang—in care of the Journal.

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The Diagnosis of Cardiac Arrhythmias.

W. R. DILLINGHAM, M.D., Salina.

(Read at the Annual Meeting of the Kansas Medical Society at Topeka, May 6-7, 1925.)

The diagnosis of cardiac arrhythmias by instrumental means is a comparatively simple thing for those whose practice is extensive enough to warrant the possession of expensive armamentarium. Fortunately most types of cardiac and pulse irregularities can be accurately diagnosed by ordinary means of physical examination. Careful study of the results obtained by graphic methods and comparison with the physical findings have enabled clinicians to formulate rules which have simplified the diagnosis and classification of these irregularities.

In arriving at a diagnosis of an arrhythmia a careful history is most important. It will reveal whether there is some original fault in the heart's equipment; whether the heart has undergone undue strain or has been exposed to the toxins of infectious diseases; and whether the other systems of the body are exerting a harmful influence on the heart's action.

The cardiac impulse to contraction originates in the "sinus node" at the venous-auricular junction, the "pace-making area."

While all portions of the heart's muscle are inherently rhythmic, under normal conditions only the "pace-maker" initiates contractions. Impulses to contraction leave the pace-making area with regularity. This regularity makes up the "dominant rhythm" of the heart. The rapidity with which the impulses are liberated is governed by the vagus. Contraction waves flow over the auricles to the auriculo-ventricular node at the auriculo-ventricular junction through which they transmit their stimuli down the right and left branches of the auriculo-ventricular bundle. Each branch goes to its respective ventricle.

In the young, the most common irregularity of the heart rate is sinus arrhythmia. It is a physiological phenomenon during childhood and is easily diagnosed because it waxes and wanes with expiration and inspiration respectively. It is often found as a normal variation in the middle

aged especially upon forced respiration. Pathological types, however, do not show this correlation between respiration and heart rate and are diagnosed by the comparative slow pulse rate with irregularly long diastolic pauses and by taking into account the fact that sinus arrhythmias are abolished when the rate is increased by exercise and become again pronounced during rest. As it does not depend upon intracardiac causes, physical examination of the heart detects no sign of disease. Its cause is outside the heart acting through the vagus on the sinoauricular node.

Simple tachycardia is due to lowered or diminished vagus tone at the pace-maker. It ordinarily presents no difficulty in diagnosis. The gradual acceleration of the pulse rate and the gradual return to its former level makes the diagnosis certain.

It is characteristic of paroxysmal tachycardia that the acceleration of the heart rate is abrupt. The impulses to contract in paroxysmal tachycardia originate in an ectopic focus any place below the normal pace-maker and so are without vagus control. The ectopic focus suddenly assumes the role of pace-maker and as abruptly yields again to the normal area. During an attack the rate is rapid and remarkably constant and is uninfluenced by rest, posture or exercise. The duration is variable. It may last only a few beats or may persist for days.

Premature contractions, or extra systoles, arise from an ectopic focus, outside the pace-maker and under various abnormal conditions. Before the normal impulse from the pace-maker has had time to reach the hyperirritable focus it has liberated an impulse to contraction, and the normal rhythm is interrupted by a prematurely occurring contraction. The interval between the premature beat and the succeeding beat is longer than the normal interval. The patient is often conscious of the beat that follows the pause. His description of his sensations are usually so clear that the physician can often diagnose this irregularity while listening to his story. Extra systoles are often transient. They ordinarily disappear if the heart rate

is increased by exercise. They are rarely found if the rate is higher than 120 per minute. Isolated extra systoles once in several normal beats followed by long pauses, present no difficulty in diagnosis. Their recognition, however, becomes more difficult when they occur in showers.

Under certain abnormal conditions auricular movements take place at a rate far above the normal limits and with great regularity. The contractions are not under the influences ordinarily exercised by the pace-maker nor under control of the vagus. Various causes have been assigned auricular flutter, but there appears to be a circus movement established in the musculature of the auricle. At times it is impossible to diagnose the condition without instrumental means, but usually there are clinical indications and findings which suggest the presence of flutter and render the diagnosis fairly certain. The condition is characterized by rhythmic auricular movements of high rate, usually above 300 per minute. It tends to persist for long periods of time, and the rate is remarkably constant. The condition is most commonly found in individuals of advancing years with arteriosclerosis and is uninfluenced by exercise, rest or posture. The pulse is usually regular. When irregularity appears it is due to imperfect blocking of the auricular impulses. The latter irregularity disappears with exercise. In those exceptional cases in which the veins of the neck are greatly distended by each auricular systole, the diagnosis becomes evident on inspection and estimation of the rapidity of the jugular pulsation. These pulsations are minute and scarcely distinguishable as separate beats but they are usually sufficiently distinct to permit an estimation of the rate.

In auricular fibrillation the orderly sequence of auricular systole does not take place. The auricular muscle quivers and twitches in various places in extreme disorder which affects ventricular activity in a characteristic way. In typical auricular fibrillation ventricular activity is completely irregular in rhythm and force so that no two successive beats are alike and a grossly irregular pulse is produced. The irregularity becomes increased during exercise. It is essentially a terminal phase of chronic heart disease; it may be prolonged for some time, but it marks a certain failure of the auricular musculature. It is diagnosed by a pulse which is rapid in rate and completely irregular in both force and rhythm.

The inherent rhythmicity of the ventricle is of a lesser degree than that of the auricle, but it is of sufficient degree to cause the contraction of that chamber when it is cut off from auricular influence. The normal conduction of an impulse from the auricle to the ventricle requires a certain period of time. If the conducting bundle be diseased the transmission of the auricular impulse may be delayed beyond the normal time, resulting in partial heart block, or may fail to reach the ventricle at all, resulting in complete heart block. In the latter event the auricle will beat regularly in response to the rhythmic impulses from the pace-maker, while the ventricle, receiving no impulses from above, beats in accordance with its own inherent rhythmicity, slowly and regularly. A slow regular rhythm at a rate below 40 per minute indicates complete heart block.

In attempting to diagnose abnormalities of the heart beat without instrumental means certain generalizations should be kept in mind. It is of value to examine both the heart and the pulse: of these more can be learned from the heart. When the heart action is irregular one should determine if there be a predominant rhythm. If there be no such predominant rhythm, the arrhythmia is probably due to auricular fibrillation. This probability increases if the rate is high.

It should be determined whether each ventricular beat produces a radial pulse. Neither sinus arrhythmia nor heart block produces a pulse deficit. Auricular fibrillation produces a pulse deficit. In doubtful cases with slow rate, the effect of exercise on the rate and rhythm should be noted. If the arrhythmia becomes more pronounced at the higher rate the probability of fibrillation is increased. Occasional interruptions to an established rhythm are usually due to premature contractions, or to partial heart block; more likely to the former.

Regular rapid ventricular action which remains of constant rate day after day, and which is uninfluenced by exercise, posture or rest is probably due to flutter or to paroxysmal tachycardia. If the rate is less than 100 it is almost surely 4:1 flutter. Paroxysms of tachycardia are usually of brief duration; flutter usually persists.

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At the recent meeting of the Southern Medical Association at Dallas, Texas, Dr. H. L. Dwyer was elected secretary of the section for Diseases of Children.

Sinusitis in Children.

LAVERNE B. SPAKE, M.D., Kansas City.

(Read at the Annual Meeting of the Kansas Medical Society at Topeka, May 6-7, 1925.)

Sinusitis in children is one of the most prevalent conditions with which we have to deal, especially where the climatic conditions are changeable and much moisture is present; this often predisposes our children to sinus diseases. Children seem to be particularly susceptible to colds, or rhinitis, due to the fact that the sinuses, with the exception of the sphenoids, are hardly more than indentations in the cancellous bone during the early years of childhood. They are primary evaginations of the nasal mucous membrane and develop by the growth of the sacs and absorption of the bone from nasal sinuses.

On an anatomical basis the sphenoid at birth has no clinical significance; after three years, development is very fast, until at the age of ten they are of adult size.

The frontal sinus has no clinical significance until the age of five, if no ethmoid cells extend into the frontal bone at birth there will be no frontal sinus, the ethmoid cells become frontal cells as soon as they invade the frontal bone. Any involvement before five or six years of age would be considered ethmoiditis.

The maxillary sinus is rarely absent, it may have clinical significance at birth and develop rapidly up to the eighth year, then more slowly, reaching adult size at fifteen.

The ethmoids are always present at birth, divided into two groups: anterior and posterior, and have clinical significance.

Until recent years sinusitis in infants and children was diagnosed only, when accompanied by complication such as orbital abscess, abscess of the cheek, or mouth, eye conditions, ulcer of cornea, uveitis, optic neuritis, meningitis, pulmonary and systemic condition, and infectious arthritis.

Emil Myers, Coffin, and Oppenheimer were pioneers in this field, but L. W. Dean, of University of Iowa, I believe, has written more than any one in this country and deserves most of the credit for bringing it so forcibly before the profession and from practicable every day point of view.

The most common source of infection is from diseased tonsils and adenoids. Not only do they infect the sinuses by direct contiguity of tissue and through the lymphatics, but mechanically cause infection of the sinuses, acting as a trap for secretion which is driven backwards into the nose from the naso-pharynx. Adenoids in this way may keep, in the upper part of the

nose, constantly a mass of secretion, which being stagnant, would soon become mucopurulent, and infect the sinuses.

The acute infectious diseases are very important etiological factors; influenza, scarlet fever, measles and diphtheria. Deviated septum in the older is often an important factor.

We are more apt to have involvement of the underlying bony wall of child than in adult according to Dr. Armstrong, due probably to primary infection being overlooked and only in those cases where there is destruction of bone and subsequent spreading of the inflammation to the soft tissues of the face is it brought to the notice of the physician.

The two prominent symptoms are nasal discharge and nasal stoppage. First ruling out foreign bodies, rhinolith, atrophic rhinitis, syphilis, and tuberculosis.

The discharge may not be noticed, may be post nasal, a chronic cough, productive or non-productive may be present, and a prominent symptom. If pus is found in the nose in the neighborhood of ostium of a sinus, and is wiped away and reappears in a few minutes, suppurative sinus disease is present because the mucous membrane cannot so soon produce the purulent secretion. In closed empyema where the outlet is blocked, pus may not be present. Sneezing is a very common symptom in infants. Fever may be present, may reach 105 degrees. Pain and headaches are present in closed empyema. Children under six years seldom complain of headaches.

Very suggestive of chronic paranasal sinus disease is a condition characterized by listlessness, poor appetite, under-weight, poor color, so commonly caused by diseased tonsils and adenoids, which persist after their removal, all other conditions negative, should cause us to think of chronic sinus infections.

All cases in children where we have asthma, chronic bronchitis, arthritis, cardiac lesion, nephritis, and deafness, the sinuses certainly call for a thorough investigation, it is sometimes very hard to say that there is no sinus trouble, it may take weeks to come to a proper diagnosis.

During the past year we have noted the predominating symptoms that brought the patients to us, which has proven sinus disease.

Take cold easily (nasal discharge)	22
Otitis media	4
Deafness	3
Mouth breathers	19

1. Hypertrophic tonsils and adenoids	12
2. Deviated septum	4
3. Nasal polypus	3
Asthma	1
Sneezing	4
Odor from nares	3
Headaches	1
Chronic cough	9
Tonsilitis	8
Defective vision	1
Cervical adenitis	3

These are both private and clinics.

DIAGNOSIS

Transillumination of sinuses in children is very unsatisfactory, due to unerupted teeth in maxillary floor.

Inspection of nasal mucosa with the presence of pus, turbinates much thicker and rounded.

Post nasal discharge if present is a positive sign, if absent should be reexamined. The x-ray examination is the most important, only by such examination can we tell whether the frontal, sphenoid, or maxillary are present. The variations of sinuses in infants and young children are so great that without x-ray plates we can have no proper understanding of our cases.

Puncture of maxillary sinus for diagnostic purpose if necessary.

The treatment of acute cases, Skillem's advice, is "course of calomel, normal saline nasal douche, followed by 1-20000 adrenalin solution. Rest in bed in well ventilated room." Nasal douche in infant and young children, place on table or bed on abdomen, with head extending over edge, face downward and below level of table, fountain syringe holding warm normal saline not more than eighteen inches above the head, nozzle smooth glass tube which fits nostril, first one side and then the other, until discharge is completely removed. All patients under five years of age should be hospitalized.

A case of three weeks standing is considered a chronic condition. Diseased tonsils and adenoids are removed first, according to Dean eighty percent of his cases were cured, of the remaining twenty percent, ninety-eight percent are promised a cure by treatment.

Vaccine therapy is recommended by Skillem and is probably more successful in this class of sinus disease than any other.

I believe nasal suction to be the best line of treatment, a number of different methods can be used, the syphon treatment

with fountain syringe or a water suction machine is good for home use. Following suction treatment the use of fifteen percent argyrol or solargentum brushed over turbinates or dropped in each nostril. Dichloramine T two percent is recommended by some.

Rarely are extensive operations indicated, unless there is imperative need of immediate removal of the infection or if after months of treatment combined with the minor operative procedure for ventilation and drainage, a marked chronic empyema persists which is causing serious complications.

The diet should consist of butter or cream, milk, eggs, succulent vegetables, fruits, orange juice, and a limited amount of bread, potatoes and cereals. Dr. Amy Daniels, University of Iowa, "We have observed that animals fed diets quite lacking or very low in the so called fat soluble vitamins, (Vitamine A) are subject to paranasal sinus infection, and infection of the middle ear."

Cod Liver Oil (Meads), plenty of sunshine, hygienic, proper clothing, proper sleeping room, some cases demand a change in climate.

There is not a man here, who has not at this time a number of sinusitis cases in his care, and it certainly is up to us to do something which will save these children from serious nasal operations later in life, much suffering, arthritis, cardiac condition, deafness, etc.

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Some Salient Facts in the Diagnosis of Early Phthisis.

L. LAFE BRESSETTE, M.D., Kansas City, Kan.

(Read before the Northeast Kansas Society, at Topeka, November, 1925.)

Tuberculosis is the most widespread, as well as the most deeply rooted of human infections. Throughout the civilized world it has always held first or second place as a cause of death. In the United States it has been estimated through the use of tuberculin tests that ninety per cent of all adults have been infected with tuberculosis. In the registration area of the United States there is near onto a million individuals sick with this disease, and public health reports showed 88,000 deaths from tuberculosis in 1921. In the last twelve years the death rate from this disease has declined over fifty per cent, due to intensive studies

which have enabled a diagnosis to be made while the pronosis is yet good.

There is still much room for improvement for, unfortunately, too many of us hesitate to diagnose phthisis until the chest is full of rales, the patient is spitting blood and bacilli, and it is time to take the measurements for a shroud. How easy it is to tell a patient he has another attack of "flu," he is "run down," or is neurasthenic, when to uncover the chest, give a good physical examination, and correlate the findings with a careful history, would diagnose an early tuberculosis. Many of us hold back a diagnosis of this disease in its inception because we know the family considers it a stigma because of the old idea that the disease is hereditary.

The object of this paper is to bring forth some ideas, gleaned from the literature and personal experience and to correlate and review some salient facts, the knowledge of which are necessary for an early diagnosis of phthisis.

The clinical picture of pulmonary tuberculosis is not easy to draw in definite terms because of the many ramifications in the pathology and symptomatology. We will go into these later, but suffice it now to say that no two cases are exactly alike in the development of physical findings.

According to Miller, of Columbia, there are three fundamental concepts that must be understood.

First, it is necessary to remember that pulmonary tuberculosis is essentially a relapsing disease after it begins to show itself, and it is improbable that any case would go from primary infection to death without periods of remittance. The history will usually show exacerbations alternating with quiescence until the disease is far advanced.

Second, it should be known the clinical picture of this disease is divided into general symptoms and focal signs, which are to be brought out by a careful history and physical examination.

Third, it must also be remembered as a basic principle that tubercular infection does not of necessity mean tuberculous disease. This is very important for we now know that tuberculous infection is practically universal at age fifteen according to the best statistics, gathered from tuberculin tests and the necropsy table.

In order to explain and emphasize these three fundamentals, it is necessary to study the modes of infection, the pathology of this disease, and the physiology of the vegetative

nervous system. There is no clean cut pathological entity tuberculosis, any more than there is a definite clinical picture tuberculosis. Pathologically it may be a microscopic group of bacilli surrounded by cells; it may be a tubercle found in a gland at autopsy; it may be an engorged viscus studded with fine miliary bodies, or a caseous, degenerated mass of pulmonary tissue. Tuberculosis shows all forms of tissue change in its development. It may show any of the following changes: proliferation, inflammation, exudation, caseation, necrosis, fibrosis or calcification; and the picture is so varied that its pathology can only be explained by following the results of animal inoculation.

From experiments on animals with direct controls, Krause, of Baltimore, lists the following definite facts: The immediate and characteristic reaction of tissue to primary tuberculous infection is always a proliferation of cells of the fixed tissue type. They probably form from the reticulum and are usually called epithelioid cells. These cells surround the bacilli and not until after a week is passed will leucocytes be observed. The end result in primary infection is always a tubercle. On the other hand, if we inoculate an animal previously infected, the immediate result is entirely different. The first reaction is a rapidly developing inflammation. This is explained by Von Pirquet as allergy. This reinoculation sets up an area of inflammation at the site of the second injection within a few hours. There is always a systemic reaction with fever and listlessness and a lighting up of any existing foci in the animal. No matter how large the first infection, Krause found the first results to always be tubercle formation, while the first result of reinfection is always allergic in its manifestation. Applying the results of these experiments which have been worked out in many laboratories, is a great help in explaining the varied and peculiar pathological findings in tuberculosis in man. It explains how one active area of tuberculosis in the body on breaking down will reinfect another area and set up a new chain of symptoms by allergy. It also shows that acute tuberculosis is always the result of reinfection because acute tuberculosis is always inflammatory as it manifests itself.

The path of infection in tuberculosis has been a much discussed subject in the past, but through animal experimentation several definite conclusions have been reached. The tubercle bacillus may form a depot of

infection immediately adjacent to the place of entry. The bacillus may be transmitted by the lymph stream to other parts of the body and form depots of infection in adjacent or distant lymph glands through which it passes. Here it is well to remember that the flow of lymph is always toward the heart. It is also of importance to recall that the final destiny of the lymph stream is always the venous system and the pulmonary circulation. Here it is enlightening to see that all the venous blood is sent through the capillaries of the lung, and that any tubercular infection has full opportunity to lodge in lymph spaces of the pulmonary tissues. We can now see the peculiar relation of the lung to tuberculous infection. The lungs are in immediate relation to the outside world through the air inspired twenty times each minute. They are the converging points of the blood and lymph from all parts of the body. The lungs are drained by lymphatics which converge at the tracheo-bronchial lymph-nodes. These glands are so close to the tissues which they drain that in breaking down they are liable to infect the very organs which they are supposed to protect. These facts to some extent explain the incidence of pulmonary infection because wherever the portal of entry may be, the converging point of the infection will be the lung.

Another point of great importance brought out by Krause is this fact: "Limitation of movement favors the localization of tubercular infection, yet it promotes arrest of the process, and freedom of movement mitigates against infection but facilitates development and spread of a lesion once established." This explains the frequency with which tubercular lesions are found in the upper lobe of the lung, and the frequency with which they are arrested in this place. It also explains the graver prognosis when other parts of the lung are involved. The apices of the lung do not expand equally with other portions on ordinary respiration. Because of this fact the flow of lymph is not so rapid and bacilli are more apt to lodge and start a foci of infection.

With these facts in mind, we will turn to the development of the history which is by far the most important single factor in early diagnosis. In order to obtain a history it is necessary to understand the many and varied symptoms arising in the initial stages of phthisis. Pottenger in his book on "Clinical Tuberculosis" has analyzed all these many symptoms and divided them

into three groups: Those due to toxemia; those due to reflex causes; and those due to the tuberculous process itself.

This seems to be a very workable classification, but to understand the etiology it is necessary to review, to some extent, the physiology of the vegetative nervous system. This division of the nervous system is in control of all the involuntary functions of the body. It is divided, as you recall, into the sympathetic and parasympathetic or vagus systems. The cell bodies of the motor neurons of this system migrate out from the central nervous system in early embryonic life. Those of the parasympathetic system are found in the walls of the viscera which they innervate, for example the plexus of Auerbach in the intestine. The motor and secretory cells of the sympathetic system after migrating out are found in clumps in front of the spinal vertebra, which when joined together form the ganglionated cord of the sympathetic system. There are other clumps known as prevertebral ganglia, such as the stellate or coeliac ganglia. These ganglia are connected with the central system by gray and white rami communicantes. The cells of the parasympathetic system are connected to the central system by branches from the third and seventh, and the ninth and tenth cranial nerves, and the nervus erogens from the second and third sacral spinal nerves. The action of these two divisions is antagonistic. Together they regulate the action of all unstriated muscle, and thus are in control of the action of the blood vessels, sweat glands, the alimentary tract, the genito-urinary system and the sphincters of the intestinal tract and the urinary bladder. Stimulation of the sympathetic nerves will cause one or all of the following symptoms: Headache, dilated pupil, malaise, nervous irritability, insomnia, lack of appetite, coated tongue, tachycardia, inhibition of gastric and intestinal secretion and motility, constipation, fever and sweating. On the other hand, stimulation of the parasympathetic nerves contracts the pupil, increases salivary secretion, slows the heart and increases gastric and intestinal secretion and motility. When both systems are functioning normally, there is a state of physiological tone which will vary from time to time to a slight degree. Any excessive stimulation of one or the other systems will bring about a hypertonic state of the side stimulated. In explaining the many symptoms which may result from the activation of these two antagonistic sys-

tems by a tubercular process, we must remember that the hormones of the various endocrine glands are constantly entering the picture, and causing one or the other system to predominate in its action. We must also remember that reinfection in tuberculosis causes allergy and allergy sets in action immune bodies which directly stimulate the vagus system.

We can now explain the variety of symptoms that may become manifest in tuberculosis. Those symptoms listed in the first group as due to toxemia are malaise, feeling of exhaustion, lack of endurance, loss of strength, nervous instability, increased pulse rate, night sweats, temperature, and blood changes. They are not caused by tubercular toxemia alone, but may also be manifest in other intoxications. They may disappear after the acute process has subsided and the body has adjusted itself to counteract the toxemia, but they may return on overexertion or autoinfection through old foci breaking down and infecting new tissue.

The second group of symptoms listed as the result of nerve reflex are hoarseness, tickling in throat, cough, digestive upset, loss of weight, circulatory disturbances, chest and shoulder pains, flushing of face. They are the result of peripheral stimulation of both the sympathetic and parasympathetic by irritable foci somewhere in the lung. These symptoms are peculiar in that they all point away from the lung. Hoarseness directs out attention to the throat, and irritable heart to the circulatory system, gastro-intestinal disturbances to the abdomen and shoulder pains to some rheumatic involvement. The symptoms in this group are not constant but may appear and disappear frequently. They may clear up for months and then return.

There are only a few symptoms listed in the third group, the etiology of which is the action of the tuberculous process itself. They are frequent and protracted colds, spitting of blood, pleurisy, sputum and temperature. These symptoms usually appear later than the toxic, or reflex, manifestations. When present, they are almost pathognomonic of tuberculosis. Frequent and protracted colds are usually due to tuberculous bronchitis. Inquiry will show in many cases they are not ordinary colds but are accompanied by many of the symptoms of toxemia. These colds may clear up and return months later. Spitting of blood should be considered tuberculous unless proven otherwise. This refers to the spit-

ting of a teaspoonful or more of red blood. It may be due to tuberculosis, and usually is, when no other sign or symptom can be found. Pleurisy is another symptom which should never be taken lightly. It is usually a metastasis from some tuberculous focus in the body which must be active or the metastasis would not occur. This is a fact which makes pleurisy serious. Sputum, when present, should be watched carefully. Rise in temperature is caused by direct tuberculous inflammation as well as toxemia. It is a great aid in diagnosis of early phthisis to obtain a careful temperature record for a few weeks. A subnormal temperature in the morning, with a slight rise in the afternoon above 98.6 persisting over a period of weeks is so important that tuberculosis must be eliminated first as a causative factor.

All of these foregoing symptoms must be inquired into in the taking of a proper history and of them only the last four mentioned point directly to lesions in the lung. Understanding the causes of all these symptoms, with a careful history, we can usually find one or two in each group which will convince of the likelihood of a tuberculous infection.

With the foregoing knowledge of pathology, the path of infection and the symptomatology in mind, we will spend the remainder of this paper on physical signs. There is no acknowledged superior procedure for a physical examination. Many authorities advocate different phases as more important, but the man who excels, in my opinion, is one who follows a definite procedure in all cases and correctly interprets his findings with the facts.

To make any kind of satisfactory examination the patient must be stripped to the waist and be sitting up, if possible. It is absolutely necessary to avoid an examination through clothing if you wish to pick up early conditions. The embarrassment caused some women by the exposure is far surpassed by the good that may come of a careful examination.

The physical signs found in phthisis are also classified into groups according to the etiology by authorities, and to me it is the most satisfactory method to approach a physical examination.

The first group of physical signs are those of reflex origin. They are dilatation of pupil, interference with vocal cord, lagging of chest wall and rigidity of muscles. The second group are those caused by the tuberculous process itself. Increased resis-

tance of tissue to finger, alteration in percussion note, alteration in inspiratory and expiratory rhythm, alteration in quality and pitch of breath sounds and adventitious sounds, such as rales and friction sounds.

When we examine a chest for tuberculosis, the idea should not be to hear what kind of rales the patient has, or look for a dull area on percussion, but we should realize we are endeavoring to discover any evidence that will prove or disprove our suspicion of early phthisis. Our attention must not be directed entirely to the lung. A dilated pupil, a flushed cheek, a spastic or atrophied muscle, the lagging of one side on respiration, or a misplaced apex beat, are all of importance. We must also remember that there is a definite connection between the vegetative nervous system and the somatic segments of the spinal cord, and look for reflex tenderness in skin and spasticity in muscle. Palpation will assist us here.

In auscultation of the chest the whole lung should be examined, but more especial attention should be given to the apex of the lung above and below the clavicle anteriorly, the axilla, the apex posteriorly and the area between the scapula and the spine. Auscultation will be the most valuable aid in examining the chest. Rough or harsh breathing is picked up early, if watched for, and is frequently found present with early bronchial or broncho-vesicular breathing, where the expiratory note is prolonged. It is well to remember that there is normally a slight increase in the harshness and the length of the expiratory note over the right apex. It is not necessary to find rales to make a diagnosis but is much more satisfactory to do so. If rales are heard without the use of the cough, it is probable that the disease has extended beyond an early stage. The use of the cough, followed by a deep inspiration, will many times bring out rales where they cannot otherwise be found. The physician who attempts to examine chest and make a diagnosis on auscultatory findings alone, or any other single method or examination, will only diagnose well developed cases.

The x-ray by a competent man, with good equipment, is a great aid in early diagnosis, especially to corroborate with your examination and to present something definite to your family that will convince them of the condition present, and insure proper and careful treatment.

The laboratory is always a great aid but should never be relied on if findings are negative, for bacilli are only occasionally present in sputum. The presence of many lymphocytes in the sputum is suspicious. Tuberculin tests are of value in children under five. A negative test at this age will rule out a diagnosis and a positive one is almost diagnostic when the symptoms are present. A violent reaction should be considered suspicious of active disease in the adult.

To summarize we will say that the early diagnosis of pulmonary tuberculosis depends to a large extent on:

1. A working knowledge of pathology and the modes of infection.
2. The fact that tuberculosis in its early stages is a relapsing disease.
3. The fact that tuberculous infection does not of necessity mean tuberculous disease.
4. A knowledge of the symptomatology of tuberculosis in its relation to allergy and the manifestation of the vegetative nervous system.
5. An accurate temperature record over a period of weeks.
6. A careful history.
7. Physical examination of the uncovered chest.
8. Laboratory examination.
9. A careful x-ray examination.
10. The appraisal of the general condition of the patient and interpretive judgment in the correlation of all facts.

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A Study of Gaits

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 (Read before the Central Kansas Medical Society at Russell, Nov. 5, 1925.)

In making a neurological examination, the examiner must make many tests before he can arrive safely at a conclusion. These tests consist mainly of a comparison between the normal, as known, and the abnormal. By measured stimuli we can quite accurately, measure abnormalities in the sensory mechanism; we can also measure the power, tone and electrical reaction of muscles and check this against the known normal. A test of the reflexes yields much

information. An examination of the equilibrium sense is of much importance. A careful testing of the pupils and fundi of the eyes may help clear up the diagnosis. The character and nature of speech should be carefully considered, but in no case should a neurological diagnosis be made until the gait, if possible, has been intelligently and thoroughly studied.

In the first place the examiner should be sure that he has an intimate acquaintance with the gait of a normal individual. In the normal gait the body should be erect, the head straight, the arms should hang gracefully at the side while the legs should move regularly and evenly. The feet should be slightly everted, the steps should be even, of moderate length. The shoes should wear out at the heel showing that the heel touches the ground first. The gait of any individual is his manner of walking together with his carriage so it is necessary to study both the walk and bearing and be able to decide whether the walk and carriage are normal or abnormal. If abnormal, in what respect—also the distribution of the abnormality. One patient may be lame—in that he drags one foot and holds stiff one arm—another may be steady in both legs and lurch with his entire body.

A gait may be abnormal in respect to the body, the arms, the legs, the feet, the step, and in each instance the attitude, position and control may be affected.

In testing the gait of a patient we should first observe his entrance into the room. He will walk more naturally if unconscious of being examined. After he comes under the direction of the examiner he should be told to walk forward and then backward, with eyes opened and then with the eyes closed. His ability to stand with feet close together eyes opened and closed should be tested. The most important of all gait tests is known as the "line test" or, "heel to toe test." Have the patient follow a line across the room, and on each step touching with the heel of the advancing foot the toe of the opposite foot. The gait must be normal for an individual to heel and toe a line successfully and follow the same line across the room. The wear of the shoes should also be carefully noted in order to ascertain if there be any departure from the normal. The drag foot wears the shoes more on the toes. In some gaits the shoes are worn evenly, especially is this true of the shuffling gait.

There are a number of other tests that may be used.

Have patient attempt to stand first on his heels and then his toes. If able to do this have him attempt to walk on toes and then on heels. Have him walk in a circle in both directions, and if possible test his ability to walk up and down stairs.

Fournier has suggested three tests for the differentiation of some types of ataxia: First—have patient arise abruptly from sitting position and at once try to walk. Second—have him stop abruptly while in the act of walking. Third—have him turn abruptly while walking.

Man has the ability to walk successfully in an erect position because of the proper coordination of a very complex neuro-muscular mechanism. The cerebral cortex furnishes the energy which stimulates the contraction of individual muscles and groups of muscles. This energy is furnished in the rough—unguided. Each individual muscle has representation in an area of cells in the cerebral cortex, and the energy destined for this muscle has its origin in these cells, but in order that there may be precise coordination of muscular contraction the energy from the cerebral cortex must be synergized in the cerebellar cortex. In the human cerebellum there is a cortical representation for each individual movement, whether simple or complex. The cerebellum is not concerned with the contraction of any one muscle but rather with groups of muscles, which in turn are concerned in certain definite movements. The character of gait is also very greatly influenced by the static labyrinth, the function of which is to aid in the maintenance of station, and the kinetic labyrinth the function of which is to recognize and analyze the motions of the body and its constituent parts. These two structures together can correctly be designated as the central organs of equilibrium. The static function is limited to the utricle and saccule, whereas the kinetic function is said by Randall to be presided over by the three semi circular canals, and also probably by the utricle and saccule. The static organs give information as to the position of the body, while the kinetic functions of the three semi-circular canals is to take cognizance of rotary movements of the body in all conceivable planes. The kinetic function of the semi-circular canals must not be confused with the term kinetic system which Crile has used for the brain, thyroid, adrenals and muscles. There are then three principal so-called centers for our consideration in a study of gaits.

First—the energy initiating center of the cerebral cortex.

Second—the energy synergizing center of the cerebellar cortex.

Third—the equilibratory center of the internal ear.

In order that the gait of the individual be normal it is absolutely necessary that these three most important, so designated centers, be performing their several functions in a perfectly normal manner. It is also essential that they be normally associated one with another by associating nerve tracts as well as normally associated with other less important motor and sensory centers. These associating nerve tracts as well as other sensory and motor centers of the brain must also be functioning in normal manner. In addition these various centers must be brought into normal communication thru the medium of both centrifugal and centripetal nerve fibres with the skin, muscles and bony systems of the body. In addition to the above the muscles, bones and skin must be performing those functions concerned in the maintenance of station and gait in a normal manner.

If consideration is given to the foregoing statements no emphasis is necessary as to the complexity of the neuro-muscular mechanism concerned in the production of a normal gait. I do not believe too strong emphasis can be given to the necessity of a careful analysis of the gait of neurological patients, or the difficulties which may be encountered in the study of a defective gait as to the cause and nature of the defect.

I shall briefly analyze some of the more important of the abnormal gaits.

First the ATAXIC GAIT—This gait is characterized by an attitude of uncertainty with poor control and a characteristic position of the body. The patient is apparently uncertain of his legs. He does not control them well and they are held far apart increasing his base. His feet come down with a distinct stamp, his steps are uncertain, of irregular length, he follows his steps with his eyes and the legs appear to be running away with the body, the shoes show little wear as is usually the case with the ataxic patient. The body sways and the patient leans well forward. The ataxic gait is characterized by uncertainty, irregularity and the stamping step.

The ataxic gait occurs in the following diseases:

First—Locomotor ataxia.

Second—Combined posterolateral lesion.

Third—Some forms of spinal syphilis.

Fourth—The ataxic type of multiple neuritis.

Fifth—Internal ear diseases.

Sixth—Tumors of the frontal region of the brain.

Seventh—Ataxic paraplegia.

Eighth—General paralysis.

Ninth—Friedreich's ataxia.

The HEMIPLEGIA GAIT occurs in patients with paralysis on one side of the body. The affected leg is rigid and spastic. It swings with and not independently of the body. The swing is in the nature of a semi-circle, the leg rotating outward and then inward toward the trunk forming an inverted letter "C". The arm is carried in a semiflexed position and also rigid. The patient walks in an uneven or one-sided manner. He can be heard before he is seen. The noise of his walk is regular rhythmic and grating.

The hemiplegic gaits occur:

First—in hemorrhage or arterial occlusion in the motor area.

Second—in some cases of cortical edema.

Third—in tumors of the motor area.

Fourth—Paresis.

Fifth—Paralysis agitans.

The STEPPAGE GAIT is also called the equine and dropfoot gait. It occurs in any condition in which there is paralysis or abnormal weakness of the anterior tibial groups of muscles. The foot drops, the toes drag. In the steppage gait the body is not affected, the toes usually scrape the floor even when the legs are raised to an abnormal height and the feet come down with a rhythmic flap like noise. This condition may be unilateral or bilateral. The wear of the shoes is on the toes, the knee action is high.

The principal diseases in which the steppage gait occurs are:

First—Multiple neuritis.

Second—Lesions of the nerves supplying the anterior tibial group of muscles.

Third—Poliomyelitis.

Fourth—Progressive muscular atrophy.

The SPASTIC GAIT is often confused with the ataxic. The legs and attitude of the patient are usually both involved. The attitude of the whole body is one of stiffness and a tendency to lean forward. The legs are adducted, the feet inverted—steps are regular but short, and the feet are barely lifted from the floor. The stiffness and disability is so great in advanced cases that the patient barely creeps and advances with great difficulty. The characteristic

features of this gait are—stiffness, slowness, creeping and shuffling.

The following diseases are characterized by the spastic gait:

- First—Primary lateral sclerosis.
- Second—Disseminated sclerosis.
- Third—Combined sclerosis.
- Fourth—Amyotrophic sclerosis.
- Fifth—Hereditary spastic paraplegia.
- Sixth—Spastic paraplegia.
- Seventh—Syringomyelia.
- Eighth—General paresis.
- Ninth—Compression myelitis.
- Tenth—Spinal meningitis.

The CLUMSY GAIT has been described by Oppenheim as the waddle—the legs are propelled by the muscles of the trunk rather than by the muscles of the legs. The gait is a rolling one, patient rolls from side to side in sailor-like fashion, the muscles of the legs are weak but usually well preserved.

The diseases in which this gait is found are: The muscular dystrophies, and in some cases of myxedema.

The CEREBELLAR GAIT is represented by a form of ataxia, called cerebellar ataxia, which is altogether different from the ataxia as seen in tabes or the ataxic form of multiple neuritis. The characteristics of the cerebellar gait are: great unsteadiness, irregularity with a tendency to reel to one side. There is no ataxia while the patient is at rest either sitting or lying, but is manifested immediately the patient assumes an erect attitude or attempts to use his legs. Wyllie says—"In the tabetic type of ataxia the legs give the appearance of running away with the body; in the cerebellar type of ataxia the legs give the appearance of being run away with by the body."

In cerebellar ataxia there is a tendency to a greater involvement of the body than in tabes. In the cerebellar attitude the head is high and retracted; cervical muscles are rigid, one shoulder a little higher than the other. In many cases in the standing position there occurs a distinct lordosis.

The characteristic features of the cerebellar gait are—irregularity of the step, the lateral reeling and the typical cerebellar attitude.

The cerebellar gait occurs in:

- First—Diseases in the cerebellum.
- Second—Diphtheria.
- Third—Disseminated sclerosis.
- Fourth—Friedreich's ataxia.
- Five—Diseases of the frontal and quadrate lobes.
- Sixth—Diseases of the cerebral cortex.

Seventh—Bulbar softening.

Eighth—Diseases of the crus cerebelli.

Ninth—Myelitis, early stages.

The FESTINATING GAIT is the gait of paralysis agitans. The face is mask-like and void of expression, the body is rigid, the arms are flexed on the elbows, the hands partly closed usually held in the position for writing, the attitude of the body is customarily forward, but the patient may lean backward or sideways. There is in the early stages tremor of the fingers, later of the arms, hands, legs and in the advanced cases of the entire body. The patient starts to walk slowly but as he advances the gait becomes more rapid, steps are short and shuffling.

The characteristic features of this gait are—rigidity, shuffling and hurrying.

The STAGGERING GAIT is also called the Alcoholic Gait—it is supposed to be not so common now as it was prior to Mr. Volstead's Act. The patient totters and reels, leans forward and backward, and from side to side. The attitude changes rapidly as the patient lurches indiscriminately. The steps are irregular, uneven and uncertain. Patient has poor control over both body and legs. The gait is pre-eminently ataxic, but it differs from the cerebellar gait in that the patient may reel in any and all directions. It differs from the spinal type of ataxia in that the patient does not follow his feet with his eyes, nor does he stamp with his feet. There is not the stiffness, the scrape, the shuffling movements as seen in the spastic gait—it lacks the sailor-like roll of the clumsy gait.

The characteristics of the staggering gait are the wide diversity of excursions, the marked reeling and the great degree of general ataxia which is evident in every position and motion.

The disease in which the staggering gait may occur are:

- First—Acute alcoholism.
- Second—Multiple sclerosis.
- Third—Cerebellar disease.
- Fourth—Brain tumors.
- Fifth—Multiple neuritis.
- Sixth—General paresis.

The HYSTERIC GAITS are often puzzling and confusing to the examining physician. The hysteric patient may have gross tremors of the entire body which affect, to a considerable degree, the gait. There may be a monoplegia, hemiplegia or paraplegia. On first appearance these various forms of paralysis may appear to be organic. In hysteric monoplegia, involving the leg, the foot

is affected to a greater degree than the leg. In hysteric hemiplegia usually the arm and leg alone are affected, the muscles of the trunk and face escaping. In hysteric paraplegia there are usually contractures without sensory disturbance or loss of sphincter function. The reflexes in hysteric paralysis are not abnormal as to quality but may be modified as to quantity. In hysteric monoplegia involving the leg the foot is dragged and not lifted from the ground; in the hemiplegic the leg and foot also are dragged, the sole not leaving the ground.

The hysteric hemiplegic gait differs from the organic type in that there is not the characteristic deformity or typical side-wheel motion; and in hysteric hemiplegia the leg is more completely paralyzed than in the organic type. The characteristics of the hysteric gaits are:

Complete palsy.

Drag Foot.

Ability to use the limb in emergency.

ASTASIA-ABASIA is a form of hysteria. In this condition the patient has perfect control of all the movements of the leg excepting those necessary in walking.

The gait of ARTERIOSCLEROSIS usually occurs in the aged, it is likewise called the senile gait. The attitude is one of old age, there is slowness and rigidity of movement, the legs being weak and the steps irregular and shuffling. The paretic may manifest many types of gait. His gait may be ataxic, steppage, spastic or hemiplegic. Even in the early stages there is an incomplete adjustment of the muscular movements, the legs are weak, some bending of the knees and difficulty of progress, the entire muscular system lacks tone, this is especially manifest in the facial muscles with a decreasing lack of expression.

In HEREDITARY CHOREA the legs, feet and body move from side to side and place to place. The arms are thrown around indiscriminately in a flail-like motion, the feet scrape on the ground, the movement has been described as clam-like in character.

MIXED GAITS occur in many conditions. In some patients there occur a spastic ataxic gait, in others a clumsy, steppage gait or there may be a hemiplegic gait on one side and a steppage gait on the other.

—R— Golf Ethics

BY RENIG ADE.

This is the time of the year when a great many of the medical profession are dili-

gently attempting to work up their golf form; and are thereby required to spend considerable time on the links.

Until the present, the alienist has been groping blindly for a proper classification for this obsession, but has made no headway.

Just the psychological or physiological change that takes place in a heavy set individual between eight A. M., when his back hurts him so he can't go down cellar after a tub for his wife; and three P. M., when he valorously goes charging around five miles of pasture and foot hills, head up, chest protruding, cursing, slicing and perspiring, has not been determined.

It probably is a reversion to the primitive that anthropologists will work out in time.

At present we have only one example in the lower animals that at all resembles this. It is the small black beetle, or tumble bug, that is fairly familiar in Central and Western Kansas, Oklahoma and Texas.

This bug cleverly constructs a ball of excrementitious material; then with its front feet on the ground, takes its stance, with the hind feet on the little ball, and with a follow through movement, rolls the ball steadily along a road or cow path, never once taking its eye off the object it is rolling.

As evolution came, the "bug" gradually stood erect, became possessed of some crooked sticks, attempted to hit the ball instead of kick it, and used a ball of rubber instead of the material that served his forebears. The word "fore" which a player often hears after being hit in the mid-section by an enthusiastic friend, is corroborative of this genesis.

A great many books have been written on golf, and the instructions if followed carefully, day and night, will produce a fair player in any where from ten to thirty five years.

However, it is difficult for a great many to follow these instructions. For instance, the corpulent individual who has not seen his feet since the hard winter '93, stands a fat chance of hitting a little ball lying somewhere in front of him. He must depend entirely on his caddy as to its whereabouts. If that individual is dishonest and puts the ball in his pocket, the fat man might strike all day and never get away from the first tee.

If a man has St. Vitus Dance, this would detract from his game. A sudden attack might come on just as he would be at the top of his swing. His club would refuse to

come down. It would be dangerous and discourteous to walk on and leave him, and it might delay the game to wait.

Or to ask a badly bowlegged man to bend the knees toward each other and pivot on his metatarsal, would of course be useless instruction; for the reason that we have never known a bowlegged man who knew what a pivot was. The only one we ever questioned thought it was something to drive in the bung hole of a beer keg.

These examples are given to show the absolute uselessness of the books written on golf. The man who can understand and apply the instructions given, is already a finished golf player, and all he needs is a pipe and a quart of Canadian Club.

There is a demand for a short code of instructions and ethics for the man who only plays afternoons and Sundays, and to these, the following are submitted, trusting the careful study of the same will improve the readers game.

In order to make it more elementary, I shall use the Meisterchaft system, or what is known as the familiar conversation plan.

Tinkle, tinkle, tinkle. "Hello, is this Main 17018?"

"No this is Fairpart 826."

"Central, I want Main 17018 quickly, please. This is Dr. Glandular speaking."

"Hello. Dr. Endocrine's office?"

"Yes."

"Is Doctor in?"

"Yes, but he is very busy. Yes, he's dated for all afternoon."

"Tell him this is Dr. Glandular asking him to play a game of golf in about fifteen minutes."

"Oh, yes." A ten second pause. "Yes, he says he will be right out but can go only two rounds."

A foursome is completed by the addition of a groceryman, who is about to take the bankruptcy degree; and a prohibition enforcement officer who plays a rotten game but is a splendid locker entertained.

We now have our game started, and the ethics will be unfolded as the game progresses.

When a player has teed up his ball and draws back to strike, it is not good form to reach for his ball or even ask to see it; even if you are suspicious that it has your initials plainly marked on it. It may cause him to slice it hurriedly over into the middle of an oat field, and you will never recover it. The gentlemanly golfer considers it much better form to extract a couple of new balls cleverly from the player's bag

when the owner's back is turned. This is known as "hooking the ball."

After the player has sliced his ball as usual, the following player should not tee up until the former has finished cursing and recovered the club he has thrown in the general direction of the slice.

Any vitriolic words that may be suggested to the original player, that he has failed to use will be gratefully accepted, and should be courteously volunteered.

Should a player try to describe in detail each of the shots he has made, do not strike him with a wooden club, as they break fairly easily. A heavy driving cleek with a follow through is indicated, keeping the eye on the base of the ear. He may be stamped on after the game if still alive.

In case you have only one club with you and wish to borrow a brassie, it is permissible to ask for the new \$24.80 club a friend has won in a tournament. He will enjoy watching you knock the rocks out of the rough with it. He will also enjoy seeing you run over by a heavy truck at Fifth and Main later in the evening.

The practice of putting five or six balls on a green after holing out, when a couple of professionals are waiting to come up, should not be encouraged except among the more robust, as the mortality in California last year was very high along this line.

It is contrary to golf ethics to choke or throttle a caddy because he refuses to give you a ball he has found marked with another players name. It is much more gentlemanly to take a quiet look around the lockers at the club house.

When an opponent who is nervous or visibly agitated, is attempting to putt, it is bad form to throw cigarette stubs, or spit tobacco juice at his ball. The same result may be obtained and in a more kindly way by playfully prodding him in the ribs with a niblick with a fairly heavy loft, or a jigger. This not only disturbs his aim, but tickles him as well. However, I have stopped several bloody brawls that began as the result of this boyish prank, and—have started an equal number.

In case the fairway ahead becomes congested with lady players of large volume who move slowly, common chivalry will not permit the throwing of divits or sticks at them. Still the new rules allow you to walk boldly up and break one leg of the near-sighted tenor singer who brought them out.

These are but a few of the fundamental rules. I have purposely avoided such technical terms as stance, bunker, Sandy Mc-

Phersan and Hellandamnation.

The sticks used, matter little. The average golf player can make about the same score with a boat oar and a potato masher as he can with a gunny sack full of niblicks and stances.

In this brief article it has been possible to touch but a few of the more important points. However, I trust I have emphasized the Chesterfieldian attitude that every golf player should strive to attain toward the game, and to maintain toward his fellow players.

—————R—————

History of the Kansas Medical Society

(Continued from page 375.)

The twenty-sixth annual meeting of the society was held in Fort Scott, beginning at eight o'clock on May 4, 1892. Dr. J. E. Oldham of Wichita presided. The minutes of this meeting fail to record the number present or the number of new members admitted.

Several matters concerning the Stormont Library were discussed, the most important of which are mentioned in the following extract from the minutes:

Dr. Reid Alexander submitted the following report of the Stormont library committee.

"Mr. President.—We have the honor to report to this society the following list of books, charts, diagrams and manikins which constitute the purchases and donations to this library since its organization.

"A reference to its pages will show that it consists of 896 bound volumes, aside from several valuable aids to study in the form of diagrams and charts, prominent among which we are pleased to call your attention to Marshall's anatomical diagrams, life size and mounted on rollers, and Bently and Trimens medicinal plants.

"The amount expended so far in these purchases is \$2,639.05, which has been drawn from the fund of \$5000.00 which Mrs. Stormont has donated as a nucleus to the library. As will be seen, there remains of this fund \$2,360.95 unexpended, which will be used as Mrs. Stormont directs.

The state treasurer informs us that he has placed \$703.34 to the credit of the Stormont Medical library, it being the accumulated proceeds arising from the investment of the \$5000.00 permanent endowment fund. These profits will not be drawn upon until the amount of her present donation is exhausted.

Through the kindness of Mr. H. J. Den-

nis, state librarian, ample room has been given us in the halls of the state library for these purchases, and as additions are made space will be provided. Mr. Dennis has listed these books, both as to title and subject upon which they treat, and has devised many ingenious aids to assist the student in his search for topics.

As these books are works of the highest authority, latest editions, and cover the whole range of medical literature, we take pleasure in presenting you this list.

"Respectfully submitted,

"REID ALEXANDER,

"Chairman, Library Committee.

"Dr. C. A. McGuire presented a communication from Mrs. Stormont, as follows:

"Topeka, Kansas, May 2, 1892.

"To the Honorable President and Members of the Kansas Medical Society:

"Believing, as I do, that the best interests of the society, the Stormont Medical Library and myself can be served by the election of a permanent chairman of the library committee, I would respectfully ask as a favor that the society so elect.

"Should this request meet with the approval of your honorable body, I would again ask as a favor that Dr. Reid Alexander be elected to fill the position. In making this special request for the election of Dr. Alexander as permanent chairman, I am governed by reason of the fact that his personal and business relations with the late Dr. Stormont in the past and myself in the present have been such that I feel that he has been of material aid and benefit to me in establishing the Stormont Medical Library, and his knowledge of and association in the work will best subserve the object desired in the completion of the same. I also find that my business relations with the committee are more readily and satisfactorily conducted with the chairman than with the committee as a body; and for the reasons above mentioned and my true wish to complete the work in the most satisfactory manner, I am sincerely your well-wisher,

"JANE C. STORMONT."

"On motion Dr. Alexander was made permanent chairman of the Stormont library committee.

"On motion the library committee was requested to investigate some plan for making the Stormont library a circulating library, and present the same to the legislature.

"Dr. J. E. Minney submitted the following resolution for Dr. Schenck:

"Whereas, The American Medical Association, at its last annual meeting, inaugurated with great unanimity a movement to establish a national department of health with a secretary of public health in the cabinet, under whose care should be placed all matters pertaining to public health; and,

"Whereas, The duties of the treasury department, crowded with the finances of a great nation, are in nowise germane to public health; and,

"Whereas, No interest in a nation is more important to its people than life and health; therefore,

"Resolved, That we heartily indorse the recommendation of the national association looking to the establishment of a department under whose protecting aegis shall be gathered all that pertains to the health and development of the people, and whose officers, like those of the army and navy, shall, after careful examination, be appointed for life.

"Resolved, That we earnestly request the senators and representatives from Kansas to labor for the establishment of such a department, and that a copy of these resolutions be forwarded to each representative."

This was the second meeting in which the section program was in effect. On the second day of this meeting a motion was made by Dr. Fryer of Kansas City, Missouri, that a committee be appointed to select from the program certain papers to be read in the general session. This motion carried and the committee that was then appointed selected ten papers that were read in the sections to which they had been assigned and were again read in the general session, seven of these papers were presented by physicians from Missouri. Some of the men who read papers in a section meeting requested permission to also present them in the general session.

The following officers were elected for the ensuing year: F. F. Dickman, Fort Scott, president; C. H. Shriner and W. S. Harvey, vice-presidents; G. C. Purdue, secretary; W. R. Priest, treasurer; D. F. Longenecker, member judicial council.

The twenty-seventh annual meeting was held in Topeka. It convened on the evening of May 10 and continued over two days and evenings. The records state that there were over two hundred physicians in attendance and that several new members were admitted.

Recommendations from the Judicial

Council that certain amendments be made to the constitution and by-laws were read. However, the only amendment that was adopted provided that there should be a recording secretary, who shall serve for three years, and a corresponding secretary who shall serve for one year.

The following officers were elected for the ensuing year: G. W. Hogeboom, Topeka, president; E. B. Peters and Geo. M. Gray, vice-presidents; G. C. Purdue, recording secretary; W. R. Priest, corresponding secretary; L. Reynolds, treasurer; H. Z. Gill and L. H. Munn, members judicial council.

The twenty-eighth annual meeting was held in Atchison on May 3 and 4. There were fifty-seven members present and thirty-six new members were admitted.

A report of the committee on Stormont Library showed that there were at that time 1,987 bound volumes in the library and the amount of \$5,000 contributed by Mrs. Stormont for the purchase of a library nucleus had been exhausted. It also showed that there was in the State Treasurer's hands \$1,303.34 accrued interest on the endowment fund.

The President, in his address, referred to some unwise restrictions in the code of ethics on the matter of consultations with irregulars. This part of his address was referred to the Judicial Council for consideration and report. The Judicial Council reported that it approved the following part of the President's address:

"I do not desire to be understood as invoking the exercise of a narrow and censorious disposition. I believe that the Code of Ethics of the American Medical Association, which we have adopted, and which is binding upon us individually, should, in many important respects, be amended, and in some degree liberalized. We, here present, claim to represent the healing art traditionally from the days of Hippocrates and Galen to the present. There is no fragment of knowledge which might aid our skill which is not extant, and to be acquired by the profession as represented by us. This is our claim. We assert that we are the recipients of the knowledge and wisdom and experience of centuries of time for the amelioration of human suffering, and curing the body of its ills. If our claim be well founded—and I assume that no one here will be heard to deny it then we have nothing to fear from the contact of the so-called schools of medicine which reject or disregard the vast

body of this accumulated knowledge, and believe in the universal efficacy of a narrow principle. If the related sciences which comprise the medical art be founded upon truth and exact knowledge, and we have acquired them, we should be ever ready to vindicate them in practice. The true test of medical skill and science, and the only one which will sustain and justify its votaries, must be made at the bedside.

"The Code of Ethics, which is made a law unto us in Kansas, forbids that we should go into consultation with homeopaths or with the so-called eclectic practitioners. I am convinced that the thick and thin adherence to this rule has done more to promote popular sympathy for, and, as a result, popular faith in, these so-called schools, than all other things put together. They say that our objection to meeting them comes from fear; that we dare not illustrate our theory, or assert our diagnosis, or make or permit a comparison of results to be made. The layman is not to be blamed for accepting this explanation as reasonable and true. His argument may be shaped in this way: "If your medical knowledge is as you claim it, the last word of science, is universal, is based upon immemorial experience and sound and thoroughly tested knowledge, you should be willing, when called upon, to employ it for the relief and cure of your fellow man. If it be all you claim it to be, it is easy for you to confute one who attempts to practice in disregard of it. Either your prejudices are so narrow and your disposition so cruel that you will allow your fellow man to languish and die upon a point of etiquette, or you dare not meet your homeopathic adversary at the bedside and give evidence of your skill and knowledge."

"The best way to prevent the encroaching of so-called schools into the favor of the people, and to establish confidence and respect for professional orthodoxy, is to meet them, if the patient shall so desire, in practice, I believe the Code of Ethics should be so amended as to allow a question of this sort to be settled by the individual judgment of the practitioner."

On the adoption of a resolution to that effect the Committee on Stormont Library was made a standing committee.

The following officers were elected for the ensuing year: W. R. Priest, Concordia, president; Geo. M. Gray and D. C. Tyler, vice-presidents; G. A. Wall, corresponding

secretary; L. Reynolds, treasurer; C. A. McGuire, member judicial council.

The twenty-ninth annual meeting was held in Topeka on May 16 and 17, 1895. Sixty-one members answered to roll call. During the session forty-six applications were received and approved.

On account of the death of Dr. Reid Alexander who had been the permanent chairman of the Stormont Library committee, Dr. C. A. McGuire was appointed by the president to fill the vacancy.

The report of the secretary showed that the funds of the Society had been inadequate to pay for publishing the proceedings in book form and money had been borrowed to meet the deficiency. The by-laws were therefore amended so that the admission fee should be \$5.00 and the annual dues \$2.00.

The following resolution was also adopted:

Resolved, That the Corresponding Secretary be and is hereby invested with exclusive power to incur and pay bills on behalf of the Society.

The following resolution which had been offered the year before was adopted:

Resolved, That Article V of the Constitution of this Society be amended by striking out the words "at such time and place from year to year as the Society may elect," and inserting the words "in the city of Topeka, Kansas."

The following officers were elected for the ensuing year: R. S. Black, Ottawa, president; M. N. Gardner and Andrew Sabine, vice-presidents; G. A. Wall, corresponding secretary; L. Reynolds, treasurer; W. H. Mathis, member judicial council.

(To be continued.)

—————R—————

Chemical Analysis of Sweat

Robert E. Barney, Ann Arbor, Mich. (Journal A. M. A., Oct. 31, 1925), was concerned chiefly with the non-protein nitrogen and urea. In addition, he determined the total solids. The composition of sweat as regards the amounts of non-protein nitrogen and urea nitrogen per hundred cubic centimeters varied within rather wide limits. The nonprotein nitrogen ranged from 28 mg. to 200 mg. and the urea nitrogen from 14 mg. to 63 mg. per hundred cubic centimeters. There was an apparent diminuation in the output of nitrogenous elements of the sweat in so-called senile eczema.

Paretic Gold Curve in Poliomyelitis.

KARL A. MENNINGER, M.D., Topeka.

The paretic type of colloidal gold reaction is apparently very rare in spinal fluid in cases of acute anterior poliomyelitis. No instances were found in the literature, and in fifty or more cases studied by Regan et al. (Am. J. Dis. Child 25:76, 1923) the nearest approach to the paretic type of curve was 3-2½-2½-1-0-0-0-0.

The patient here reported was a woman of 25 with typical poliomyelitis and no evidences of paresis or syphilis. The colloidal gold test was made by the public health laboratory of the Kansas State Board of Health, Topeka, August 19, 1925. The reading was as follows: 5-5-5-5-5-4-3-0-0. It is unfortunate that the spinal fluid was insufficient in quantity for a Wassermann. It is, of course, not impossible that the patient has paresis *sine paresi*, but there were no other indications of this and, as Cabot has shown, compound diagnoses are extremely fallible.

The authenticity of the gold solution was tested by the spinal fluid of an undoubted paretic and found to be of normal sensitivity.

A brief summary of the case to verify the diagnosis follows:

Family History: Migrainous father, with insane uncles, migrainous sister, frail and nervous brother, and one brother died of poliomyelitis fourteen years ago.

Past History: Healthy childhood. Married life has been uneventful except for the birth of one child four years ago. No miscarriages.

Present Illness: Eleven days previously woke up in the night with severe headache and backache. Next day her temperature was 102°F. (No diarrhea but had had it for two days a week previously.) Noticed she couldn't lift her legs although she could still stand, but by the next day she couldn't use them at all. This was three days after the onset of the illness. The backache, headache and fever had abated somewhat. She has been paralytic since. When she bent her head forward and swallowed she said, "it hurts clear down to my knees." No complaint of stiff neck, or visual or urinary disturbances.

On this day the patient's four-year-old daughter developed a diarrhea and fever; the next day she was listless and complained of legs hurting; also some headache and backache; by the third day she seemed well again.

For the next four or five days there were no changes in the patient and as she was away from home they put her on the train and brought her home two days previously. After this trip she had more severe headache, also dragging pains in the shoulder girdle and in the hips, knees and ankles. They have been more or less constant but are worse by spells and she was very restless and troubled the night prior to the lumbar puncture.

Physical examination showed a well developed young woman with good musculature except where flabby as a result of the paralysis. The chest was negative except the heart rate was rapid and P2 accentuated over A2. The abdomen was slightly sunken, and because of the flaccidity the viscera were easily palpable and apparently generally tender although not painful. Both legs were swollen and from the history chronically so, but did not pit easily to pressure. Temperature 98.6, pulse 86.

Neurological examination: Pupils were contracted; reacted promptly to light through about one-fourth normal distance. The vessels were full; discs reddish, not obscured. Difficulty in swallowing. Could not raise head from pillow. There was an almost complete flaccid paraplegia involving adductors, glutei and abdominal muscles; also weakness of right deltoid and of an indeterminant group of spinal erectors. All movements of legs caused pain, evidently of tendon-stretch and nerve-stretch origin. Sensory system everywhere unchanged. Knee-jerk and ankle-jerk were absent bilaterally. Abdominal reflex absent; plantar slightly hyperactive on left, absent on right; positive Brudzinski and Kernig.

Laboratory Findings: Blood serum Wassermann negative throughout. Spinal fluid under 150 mm. pressure (water manometer); cell count 15, globulin Pandy, 3 plus; Nonne-Appelt, 3 plus; Noguchi 3 plus; sugar 96.9 mgm. per 100 cc.; colloidal gold curve 5-5-5-5-5-4-3-0-0. The quantity was insufficient for a Wassermann test.

—————R—————

UNIVERSITY OF KANSAS CLINICS.

Clinic of Frank C. Neff, M.D.

Department of Pediatrics.

HODGKIN'S DISEASE IN A FIVE-YEAR-OLD BOY.

The Hodgkin syndrome is of especial interest to the pediatrician because of its rarity in childhood. In infancy the disease

is unknown, but after three years of age, it begins to appear occasionally.

The family is living and well. There is no familial tendency in Hodgkin's disease. This boy's birth was difficult and the instruments used caused a hematoma of the neck, which soon disappeared.

This boy began to have enlarged glands on one side of the neck in December, 1924, ten months ago. Three light doses of Roentgen ray were administered at St. Joseph Hospital in January by Dr. McDermott with prompt but transient results. He came into the outpatient department of Bell Hospital in September of this year with enlarged glands plainly visible and since then steadily enlarging.

The features of the case are:

Limitation of the obvious adenopathies to a four-inch area on one side of the neck and downward to the clavicle. The glands are discrete and movable and not adherent to the skin, but give the impression on inspection of a large mass. The consistency is elastic. No pain or inflammation has ever occurred.

The radiogram of the thorax made last January will be contrasted with those recently made by Dr. McDermott. All of the films show a large shadow in the mediastinum indicative of a group of mediastinal or peri-bronchial glands. There have been no symptoms of pressure from these glands. Dyspnea, dysphagia and fatigue have not yet occurred. There is marked dullness over the right chest posteriorly.

The appetite is good. There is no cachexia. The weight has recently increased, he now weighing 38 pounds. The spleen, liver and mesenteric glands cannot be felt.

The blood shows a simple secondary anemia except for a slight increase (11%) in the large mononuclears and transitional white cells. The small lymphocytes are decreased. The red cells average 4,000,000. The average hemoglobin 75%. The present leucocyte count is 12,500, with small lymphocytes 25%, polymorphonuclears 60%, and platelets increased.

The examination of the glands by Dr. H. R. Wahl shows:

Gross Pathology. Specimen consists of two lymph glands which have been sectioned. When approximated these glands measure 20 by 18 by 15 mm. and 10 by 10 by 7 mm. They are smooth, somewhat pale in color and have here and there over their surfaces a few adhesive tags. On section a homogeneous cellular architecture is seen which is grayish-white in color and

is friable. In the larger gland a small softened area is seen but no areas of caseation were grossly evident.

Histological Pathology. The lymphoid architecture is largely broken down and can scarcely be recognized in many places. There is a very marked diffuse endothelial cell hyperplasia. The swelling of the endothelial cells of the reticulum as well as the lymphoid sinuses can be seen. There are large numbers of large giant cells and cells with multilobulated nuclei characteristic of the so-called Dorothy Reed giant cells. There is abundant infiltration of eosinophilic cells. There is very little fibrosis present. The picture is that of an early stage of Hodgkin's disease.

General Consideration. At this stage there is a relative lymphocytosis. Later as the disease becomes widespread, one may expect a marked increase in polymorphonuclears, eosinophiles, transitionals and platelets.

According to Holt the disease is a clinical and pathological entity and not dependent upon infections. Mallory, however, thinks the term Hodgkin's is inaccurate, that a few of the cases will be found to belong to the scirrhus lymphoblastomatous type, and that such cases may be due to an organism. Recently many observers believe that the diphtheroid bacillus described by Bunting, Yates and Rosenow and found in the glands and blood stream is causative. The terminology is as confusing as the varieties of conditions earlier grouped under the name of Hodgkin's.

Characteristics of the Glands. Early the lymphoid cells are proliferated, with many large pale cells with indistinct nuclei, replacing the normal structure of the gland. There are some large cells which are clear in outline, structure and nuclei. Later the glands become fibrous due to firm connective tissue.

Other regions of the body than the neck also have similar lesions.

Diagnosis. Tuberculosis is excluded by a negative skin test and from the absence of tubercles in the section of the gland tissue, and in the freedom from breaking down and matting together of the adjacent glands. Sarcoma is more rapid in growth and the histology usually diagnostic.

Course. The disease is more common in boys. It lasts less than three years, begins in one side of the neck and spreads to any part of the body, the spleen, liver, retroperitoneal glands, skin, etc.

Death is due to asthenia, suffocation,

acute infection with fever and gastro-intestinal symptoms.

Treatment is unavailing. Roentgen therapy causes early a rapid but transient remission. Arsenic has never cured a case. Removal of foci of infection in tonsils has been advocated. Tracheotomy may be necessary to prolong life when the pressure in the thorax becomes intolerable.

—R—

Further Studies on the Dick Test

P. S. Rosen, P. B. Sadowski and L. A. Korobicina, Moscow, Russia (Journal A.M. A., Nov. 28, 1925), have made 2,487 Dick reactions on healthy persons, among the inhabitants of the small manufacturing town Jarcewo. The reaction was made with the toxin of the Metchnikoff Institute, purified after the Hentoon process. The strength of the toxin was 1:500. They have obtained 867 positive and combined reactions, or 34.9 per cent., a lower percentage than that obtained in Moscow. This difference may be explained by the fact that there was an epidemic of scarlet fever at Jarcewo. Out of twenty-nine old persons, most of whom were over 60, there was only one with a slight positive reaction. It is noteworthy that during the epidemic of scarlet fever in the Farroer islands at Tjornshovn, there were ill with the disease only 2.9 per cent of the inhabitants between the ages of 40 and 60 years, and only 1.8 per cent of the persons over 60. Of 179 persons who declared they had previously been ill with scarlet fever, 63, or 35.2 per cent, showed a positive or combined reaction. Very young children in families with a higher standard of living had a retarded spontaneous immunization and gave a higher percentage of positive reactions. At the age of 6 and over, this difference was found to disappear; a condition that probably may be explained by the fact that children at this age begin to attend school, where all groups are subjected to equal conditions. As soon as children reach the age of adolescence, if their living conditions are good, they show a quick decrease of percentage of the positive reaction, while others who are deprived of good living conditions show only a slight decrease from 32.6 to 30 percent. Apparently, persons subjected to bad living conditions are more liable to get sick. Among 867 children with positive and combined Dick reaction, there have been only seven cases of scarlet fever; so far all of them showed a negative Dick reaction after their recovery. Among 1,620 children with nega-

tive and pseudonegative reactions, there has been no case of scarlet fever.

—R—

The Dietetic Factor in the Etiology of Chronic Nephritis

Two facts stand out prominently in the experimental work that has been done by L. H. Newburgh, Phil L. Marsh, Sarah Clarkson, and A. C. Curtis, Ann Arbor, Mich (Journal A.M.A., Nov. 28, 1925). In the first place, diets containing excesses of protein produce urinary abnormalities in the omnivorous rat. In the second place, the rate at which evident abnormalities develop is dependent on the amount of protein fed and the length of time the diets are used. The results are believed to justify the statement that protein above certain limits is injurious to the kidneys of omnivorous as well as herbivorous animals. Since protein is absorbed from the intestine as its amino-acids, it was thought possible that information could be obtained by their injection into normal animals. The authors have injected intravenously into normal rabbits and puppies twelve of the amino-acids that result from the digestion of protein. Of these, no evidence of injury was obtained from the glycine, alanine, phenylalanine, glutamic acid, leucine and arginine. Of the remaining six, aspartic acid was injurious to the kidneys of rabbits, but not to those of dogs, whereas lysine, histidine, cystine, tyrosine and tryptophan gave unequivocal evidence of renal damage as the result of their injection into the circulation of both rabbits and dogs. In the cases of the last three, in particular, not only were marked urinary abnormalities obtained, but also the microscopic examination of kidneys showed extreme parenchymatous injury. It is quite evident that excess of protein is a contributory factor in the etiology of chronic nephritis. For example, focal infection alone might not seriously damage the kidney. Excess of protein alone might not seriously damage the kidney. Focal infection and excessive ingestion of protein in the same subject are a combination of circumstances that commonly result in chronic nephritis.

—R—

The Burlington doctors, dentists, and druggists meet every Monday evening at one of the cafes, and after eating supper together adjourn to some one of the doctor's offices where they have impromptu talks and occasionally a paper on some medical subject.

THE JOURNAL

of The

Kansas Medical Society

W. E. McVEY, M.D. - - Editor

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WHAT KIND OF LEGISLATION?

There are always some among us who are desirous of having more laws, or better laws, or having some changes in the laws that already exist. At every session of the legislature hundreds of new laws are proposed, and yet nearly every one, even those who propose the new laws, recognizes it as a fact that there are already far too many laws on our statute books.

Better laws, if they are intended to serve a good purpose and to replace others, are always desirable, but any attempt to change a law already in force is always a speculation and the result may be disastrous.

The medical practice act which was passed twenty-five years ago is a very satisfactory law, in so far as it applies to doctors of medicine. It does not accomplish all that was expected for the present situation was not anticipated. That there would be an influx of poorly qualified men and that it would be possible for these men to secure special legislation permitting them to practice medicine, did not occur to those who were instrumental in securing the passage of the practice act.

Had this possibility been recognized and the law properly framed there would now be no occasion to seek further legislation to regulate the practice of medicine. When

the present law was passed there were but three schools of practice and each of them was recognized, and provision made for representation of each on the board of examiners, and also it was provided that special examinations should be given in certain subjects to the applicants for license from each school.

When a new school, or cult if you please, came into existence there was no provision for licensing its disciples and naturally a special law defining the qualifications for licentiates of that school and providing for a board of examiners was asked for and secured. Why not? When still another cult appeared and asked for similar privileges, it also was granted a special law and a special board. Should another cult appear and ask for a special law and a special board of examiners, it will no doubt be accorded a similar favor. Why not?

From the legislator's point of view at least, the medical practice act was a piece of special legislation, requested by and granted to the three schools of practice then in existence, recognizing each and providing special privileges to each, as requested. There was no monopoly on legislative favors in this act however, and when a new school appeared it was perfectly in harmony with the previous attitude of the legislature to pass further special laws.

The error consisted in the recognition of the three schools. Had the medical practice act simply provided that certain qualifications were required of all those who desired to practice any form of healing there would have been no occasion for further special legislation. That kind of a law could have been passed at that time just as easily as the one that was passed. Such a law could have been passed a few years ago, had the legislative committee of the Society and the commission appointed by Governor Hodges been unanimously in favor of it. Such a law could be passed now or at any other time if its scope were properly explained to the legislators and if the medical profession would unanimously endorse it.

A law requiring every one who practices the art of healing in any form to have a

practical knowledge of the basic principles of what we are accustomed to term medicine—definite knowledge of the structure, the functions and the pathologic changes of the human body—will appeal to any legislative body when it is understood. Laws of this kind have been passed in other states and have proven to be quite satisfactory to all concerned. It does not provide for special methods of practice, but it does provide that the practitioner shall know enough not to endanger the lives or health of the people. Such a law is readily recognized as not being in the interests of any particular school of practice, but is really for the protection of the people.

PERIODIC EXAMINATIONS.

Efforts are being made in other states to popularize the periodic examination of the apparently well. Where the profession has gone into a well prepared program with unanimity and cooperation an encouraging degree of success has been achieved. This does not mean that any large proportion of the population has yet acquired the habit, in any particular section of the country, or where there is no inducement or no obligation other than ones interest in his own state of health. And it is pretty generally conceded that some time must elapse before the public will be generally convinced of the importance of such examinations.

It has been suggested, and the suggestion seems a very excellent one, that the habit should first be created in the children. Parents are usually more concerned with the health, the growth and the physical and mental development of their children than with themselves, and they can readily see the advantages to be gained by having their children examined once each year. The habit once established in childhood will be likely to persist in adulthood.

Considerable impression has been made among the more intelligent people in communities where a real effort has been made to develop the idea.

For some reason the profession in Kansas has not taken to the idea with any particular enthusiasm. So far no definite plans for a general campaign have been

considered by the Society. The American Medical Association has had the subject under consideration for several years and its committee has prepared a manual of suggestions for the conduct of these examinations, which describes in considerable detail the extent of the examinations that should be made and how they should be made. The committee has also prepared blanks for the use of the examiner.

The general plan as outlined by the committee contemplates an annual examination of each individual on his birthday, this examination to be conducted by the family physician. It is also understood that a fee should be charged for each examination, and since the examinations are uniform, a standard fee should be determined for each community and every physician in that community should charge the same fee.

Each county society should consider this campaign as a part of its legitimate function and should fix the proper fee and prepare necessary rules for the government of its members in this kind of work.

It may be worth while to consider, as a means of popularizing the custom, the plan of making one examination in each family free of charge. Each member of the Society might be permitted to announce to his regular patrons that he would examine free of charge one member of the family on his or her next birthday.

What shall be the amount of the fee? The examination is perhaps a little more inclusive than the ordinary life insurance examination. It is doubtful if people would be willing to pay more for it, and it is certain that physicians cannot afford to do it for less.

It is time the physicians in Kansas made some move to take advantage of the propaganda that has already been put forward for this work. The plan deserves consideration and the people are beginning to appreciate its importance. Some of them, perhaps a good many, are already patronizing the commercial examining clinics which make a profit from the work actually done by local physicians.

PROMISCUOUS INTRAVENOUS THERAPY.

Intravenous therapy is not a new method of drug administration. There are records which indicate that remedies were administered in this way by the early Egyptians. There are quite authentic reports of intravenous therapy a couple of centuries ago. That the practice was abandoned, perhaps many times, is suggested by its occasional mention in histories covering long periods. No matter how efficient this method of drug administration may be when used with circumspection, it is not improbable, in fact it is most probable, that it will again be abandoned and probably for the same reasons as before.

That it may have an important place in therapeutics may readily be conceded, but it does not follow that it can supply every need, that it can be used indiscriminately, or that it can be used with impunity in any case. The experimental work which has recently been reported shows at least that there are some drugs which when introduced into the veins do set up pathologic changes of more or less significance. Negative results in such experiments, however, do not necessarily mean that the drug giving such negative results will cause no damage. It has formerly been an accepted hypothesis that a slight irritation may cause a mild low grade inflammation in the vascular system, resulting ultimately in lesions of sufficient magnitude to produce definite symptoms. If irritants resulting from faulty elimination may produce such reactions, it is not unreasonable to surmise that similar results may follow the mechanical introduction into the blood stream of at least some of the great variety of chemical agents that are now used in that way. That no detrimental effects are immediately observed hardly justifies the conclusion that the method may be practiced with impunity and that agents which produce intense reactions, even necrosis, in the skin and subcutaneous tissues, may be introduced into a vein and pass through the circulation without causing any reaction in the blood-vessels.

Until further investigations of immediate effects have been made, and further time

has been allowed for the determination of remote effects, a maximum degree of caution is advisable. There has been abundant material for necropsies, in cases where various agents have been administered intravenously as a last resort, to determine the immediate effects upon vascular structures in the human. In the years to come, if case histories are carefully preserved, the manifestations of the more subtle arterial changes may be recognized and their etiology properly fixed. The biochemist might render inestimable service to the profession in determining the effects of some of the agents used upon blood chemistry.

It is at any rate well to adopt a conservative policy and restrict our intravenous therapy to those agents known to be harmless and which cannot be just as effectively administered by mouth.

CHIPS

Skill of itself does not insure success. It must be leavened with the human equation—tact.

“Dermatology is in the “silk stocking class” in the family of specialists in the practice of medicine. The patient never gets the doctor out of bed at night, never dies and never gets well.”

The biologist has concluded that the chromosomes of the nucleus of the cell are the carriers of inherited characteristics of the living organism, in animals and man.

The *cosmic ray*, it is said, is one-hundred times more penetrating than the most powerful x-ray. Robert A. Milliken, the Noble Prize winner and president of the California Institute of Technology, and his assistants are the discoverers. “They conclude that the atomic energy generated on earth from radium and thorium is insignificant compared with the energy of the rays of cosmic origin. The most penetrating rays produced in our hospitals cannot go through half an inch of lead. But these cosmic rays originating somewhere out in space are at least one hundred times more penetrating than those.”

Our California correspondent suggest that the only class of pseudo doctors who can handle these cosmic rays with safety at the present time are the chiropractors.

There is considerable clinical evidence of

the peculiar fact that septic focus in which a definite bacterial infection is demonstrated, may give rise to an inflammatory reaction, in another part of the body, which is bacteriologically sterile. Any explanation of this phenomenon is theoretical but it is presumably due to the bactericidal action of the tissues or of the fluids of the part to which the organism has been conveyed, and the inflammatory reaction is caused by the bacterial products.

In an article recently appeared in the *Hahnemannian Monthly* Crump suggests that "packs and taped sponges are best when made of flannel, as they lessen traumatism, retain heat for a longer time, remain resilient and do not pack down as does gauze." Besides the considerable difference in expense there are several objections to the use of flannel for this purpose.

From a study of fifty cases in which routine physical and mental examinations were made, including laboratory tests, blood, examinations, basal metabolism, sugar tolerance tests and tests of endocrine functions, Hall and Neyman (*Journal of Nervous and Mental Diseases*) conclude that the term "dementia precox" represents a clinical syndrome and not a disease entity. They suggest that the cases studied may be divided into groups such as a schizophrenic reaction type associated with toxic conditions, second, with endocrine disturbances and third, with psychogenic disturbances.

Two conditions are necessary for the formation of pus—positive chemotaxis and cell necrosis—and any substance that will produce these conditions may cause suppuration. Although bacterial infection is the usual cause, bacterial proteins from non-pathogenic bacteria may cause it, as may certain chemical agents, such as oil of turpentine, mercury, croton oil, and silver nitrate solutions. While pus will not be produced except under these two conditions, one other condition is required—the presence of digestive enzymes for the digestion of the necrotic cells. These enzymes may be derived from the leucocytes, from the infecting bacteria if any are present, or from the fixed tissue cells. In exudates rich in serum, however, the enzymes may be inhibited by the serum and pus not be formed.

Masao Fujihara pointed out the fact that in central glycosuric cases, glycogen was formed in the mucous membrane of the digestive tract, especially of the cecum, from

the blood sugar. He further suggested that the mucous membrane might play an important part in hyperglycemia. (*Japan Medical World*.)

The medical profession in Germany is apparently interested in educating the people in matters of health. It is reported that some of the most eminent physicians there have accepted invitations to lecture to the trade unions in the industrial city of Essen. Among the lecturers are Prof. Sauerbruch, of Munich, on the surgical treatment of tuberculosis; Prof. Rubner, of Berlin, on fatigue; Prof. Thomas, of Leipzig, on self-government of the human body; Prof. Krehl, of Heidelberg, on the prophylaxis of infectious diseases; Prof. Aschoff, of Freiburg, on the value of autopsies and of experiments on animals for the public health; Prof. His, of Berlin, on the circulation of the blood and its derangements. These are subjects that might be utilized to good advantages in this country for public addresses.

Mechnikoff believed that if man escaped accident and disease the inherent vitality of his tissues was sufficient to make him live one hundred years. Sir Arthur Keith holds that the facts show that forty-five years was the span of life allotted to man. In support of this he cites the functional failure of the lens of the eye at forty-five, all the elastic tissues and cartilages of the body lose resiliency by the middle of the fifth decade, the normal child bearing period of women also ends at this age.

Whether our allotted span of life is one hundred years, seventy years or forty-five years it is certain that some of us live too long and others do not live long enough.

Intravenous injection involves difficulties of technic, with the possibility of local injuries to the peripheral blood vessels at the seat of operation. It presents dangers of bacterial contamination; the vehicle as well as the drug is immediately foreign to the blood, and other objections have presented themselves. The Council on Pharmacy and Chemistry has taken a decidedly conservative attitude toward the recognition of the scores of products intended for direct intravenous use. The wisdom of this stand has been attested anew by a recent report of Hanzlik and his collaborators who report that a large variety of substances cause definite and important changes in arterial blood of test animals, accompanied as rule by disturbances in

physiologic function. (Jr. A.M.A., Nov. 21, '25.)

New and Non-official Remedies brings out that there is considerable evidence in favor of the therapeutic value of soured milk—particularly of sour milk containing an abundance of living *B. acidophilus*. Whereas the administration of *B. acidophilus* has for its object the implantation of living *B. acidophilus*, there are reports which indicate that the administration of milk sugar may produce the same results through promoting the growth of aciduric bacteria normally present in the intestinal flora. (Jr. A. M. A., Nov. 14, '25.)

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KANSAS MEDICAL LABORATORY ASSOCIATION

COMPARISON OF KAHN TEST AND WASSERMANN REACTION.

(Abstract of report before the Kansas State Medical Laboratory Association, at Emporia, Kansas, spring, 1925, by Cornelia M. Downs.)

An analysis of 24 articles recently published comparing the Kahn test with the Wassermann test shows the results for 14,945 cases. The per cent of cases giving complete agreement range from 60-100 per cent, those giving partial agreement from 11-33 per cent, and complete disagreement from .8-21 per cent. This would indicate a great variation in the results of the different workers. Five authors considered the Kahn test more sensitive but did not give figures. Six authors considered it more sensitive in from 3.3-79 per cent of cases, here again the great variation is to be noticed. Four authors state that the Kahn test is considerably less sensitive than the Wassermann. Only three authors out of a total of 29 state that the Kahn test is just as reliable as the Wassermann. The majority state that the test may be useful as a supplementary test to the Wassermann but that it can not be substituted for the Wassermann. Several state that higher accuracy is obtainable using both than with either alone. The advantage of simplicity and the lack of interference by anti-complementary sera is emphasized.

On the whole it would seem that the test compares favorably with the Wassermann but that it has not reached the stage of perfection where it can supplant the Wassermann.

NOTES ON BLOOD CHEMISTRY

J. L. Lattimore

The cloudiness of the unknown in blood urea determinations, claims to be solved

by Frank B. Cooper of Trudeau, New York. According to his article the cause for cloudiness is the addition of an excess of capryline is the addition of an excess of caprylic alcohol used to prevent foaming. He in my hands, this amount will not prevent foaming for sufficient time to insure the removal of all ammonia into the acid solution. Using the amount he recommends, according to his method, I obtained a cloudiness within a few minutes. This subject is yet unsettled and deserves considerable study.

CLINICAL PATHOLOGISTS STANDARDIZE

The American Society of Clinical Pathologists has undertaken the proposition of standardizing the laboratories of its members. The Kansas Medical Laboratory Association has talked this for a number of years and each year brings us nearer to this step. Our duty is to render an efficient service, and surely standardizing our technique and methods will only help to render a more efficient service.

NOTES ON LABORATORY DIAGNOSIS OF DIPHTHERIA.

By Clara Nigg, Department of Bacteriology, University of Kansas.

Throat Examinations. The common etiological factors in tonsillitis are streptococci, diphtheria bacilli, and *B. fusiformis* with the accompanying spirilla of Vincent's angina. Mixed infections are not uncommon. The organism primarily sought for is always *B. diphtheriae*. The occasion for a laboratory examination may be diagnosis, carrier determination or release from quarantine. Below are listed some important points in the laboratory diagnosis of diphtheria.

Loeffler's Medium. To which 5 per cent glycerine has been added will be found to remain moist much longer than it does without glycerine. This is of particular advantage where the medium is supplied to a large territory to be kept on hand by physicians for occasional use. Corks wrapped in cotton will help prevent undue drying.

Obtaining Cultures for Examination for Diphtheria Bacilli. Since there are so many cases of nasal diphtheria on record in which the throat cultures are consistently negative, it should be borne in mind that separate nose and throat cultures should be taken. This is most essential where examinations are made, as in schools, for carrier determination. If only throat cultures

are taken, dangerous carriers are sometimes overlooked.

Examination of Cultures. Wherever possible a Loeffler's tube should be inoculated and a slide made with the swab as soon as it is obtained. If this is impossible, the swab should be sent to the laboratory as once so that the medium can be inoculated before the swab dries. The drier the swab the fewer the chances are for a positive culture. Upon receipt of the swab or slide, a microscopic examination should be made immediately and the results reported to the attending physician without delay so that the proper treatment may be given. Doctor Martin Dupray reported to the Association some time ago that he had obtained over 90 per cent positive results by direct smear as compared with cultures. He emphasized the importance of time, patience and experience as necessary to get a high percentage of positive results by direct smear. Direct examination saves time which is very important to successful treatment with antitoxin. The diagnosis from a direct smear should always be confirmed by culture examination—whether the first diagnosis is positive or negative. The stain used is largely a matter of choice, though on the whole for diagnostic work, Loeffler's Methylene Blue is doubtless the most satisfactory for bringing out both morphology and metachromasia, as well as the organisms of Vincent's angina, which do not appear in ordinary cultures. The various special stains which have been devised are largely for the express purpose of demonstrating more readily metachromatic granules. In preparing the film, the smears should be representative of the whole growth. It is undoubtedly a mistake to attempt to select characteristic portions of the growth. A culture which shows suspicious-looking organisms should be reported promptly as "Suspicious" with a request for another culture, so that the physician may institute treatment if it is indicated by the symptoms.

Virulence Tests. Virulence tests should be done on cultures from the following types of cases:

1. Positive cultures from cases without clinical symptoms. Such cases should be held in quarantine until the results of the virulence test are obtained.
2. Positive nose cultures accompanied with negative throat cultures.
3. Cases which show positive cultures longer than four weeks after clinical recovery. Ordinarily the diphtheria

bacilli isolated from such cases will be virulent, but a sufficient number of cases are on record showing virulent bacilli replaced by avirulent types to warrant making a virulence test on such cultures.

Method of Isolation for Virulence. A very successful method of isolating the diphtheria bacillus from a mixed culture is in use by the Minnesota State Board of Health. Instead of pouring and streaking serum agar plates as is done in most laboratories, the method in use there is to inoculate six or seven Loeffler's slants successively, flaming the needle between each inoculation and reinoculating from the last slant just inoculated. For this purpose a square "loop" about 7 mm. x 5 mm. is very practical, since the entire surface can be seeded in this way with two or three strokes. This method insures well isolated colonies within twenty-four hours. The fishing can be done with a needle bent at right angles at the end, the hook being about 2 mm. If the medium has water of condensation on it, the tubes should be held upright to avoid the confluence of colonies. The individual colonies may be transferred to separate slants or three or four may be transferred to a single long slant, by confining the area inoculated to narrow horizontal strips across the slant. In routine work no difficulty is encountered in getting well isolated colonies and the method has the particular advantage of obviating the necessity of keeping sterile serum, sterile petri dishes and agar on hand for that purpose. Moreover, a great deal of time is saved if the plates do not have to be prepared as they are needed.

This method of isolating an organism from mixed cultures will be found to be very satisfactory in general work, and can replace the petri dish method in most instances.

Release Cultures: Two or three consecutive negative cultures from both nose and throat should be required before release from quarantine. Under no circumstances should a patient be released on a direct smear examination which is negative. All laboratory workers know that the direct smear may fail to reveal the diphtheria bacilli even at the height of the disease and certainly, as a case clears, the organisms become fewer so that they are sometimes missed even in smears made from cultures. One should be particularly chary about granting quarantine release to laryngeal cases, as throat cultures are very often

negative throughout the course of the disease in such cases. Diphtheria can be reduced to a minimum if laboratory workers are sufficiently conscientious in the matter of release cultures. Tonsillectomy is recommended by the Minnesota State Board of Health for clearing up persistent carriers.

Question: How do you fill the small inverted vials in the Dunham Fermentation tubes?

G—————.

Answer: Put inverted vials in test tubes, add the desired carbohydrate broth (about 10cc), plug tubes and sterilize in autoclave for desired period of time and at desired temperature. When the tubes are removed it will be observed that the inverted vials are filled. The vacuum produced in the autoclave has removed the air and hence the tubes fill.

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DEATHS

Dr. George W. Akers, aged 86, died at Stafford, Kansas, in September. He was graduated from Indiana Medical College, Indianapolis in 1878.

Dr. J. A. Pinney, a pioneer physician of Wilson, Kansas, died at the home of his son in Mounville, Wyoming, November 3.

Dr. Frances A. Harper, aged 56, of Pittsburg, Kansas, died recently according to a notice received from the post-office. Dr. Harper graduated from the Kansas Medical College in 1904 and has practiced in Pittsburg for a number of years.

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PERSONALS

Dr. J. H. Dittmore has moved from Tipton to Linn, Kansas, where he has taken the offices formerly occupied by Dr. Webster.

Dr. J. F. Hassig and the editor of the Journal attended the annual conference of secretaries and editors at the A. M. A. headquarters in Chicago, November 20 and 21.

Dr. V. P. Booth who was located in Salina recently has moved to Kingman, Kansas.

Dr. C. A. Higdon has moved from Atchison to Ottawa, Kansas.

Dr. W. G. Attwood, who was for a short time located in Topeka, is now in Glendale, California.

Dr. Geo. P. McCoy, formerly of Neodesha,

Kansas, is now located in Covington, Virginia.

Dr. W. E. Cary has moved from Russell Springs to Fort Scott, Kansas.

Dr. H. E. Hawley has moved from Hudson to Englewood, Kansas.

Dr. L. R. Sefarik, formerly located at Haven, Kansas, is now located at 1437 E. Virginia Ave., Denver Colorado.

Dr. C. L. Ramsay has moved from Everest to Waterville, Kansas.

Dr. and Mrs. H. T. Salisbury of Burlington have returned from a six weeks trip in the Ozarks. The doctor has some loud stories to tell of his sightseeing.

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SOCIETIES

WILSON COUNTY SOCIETY

The Wilson County Medical Society held its regular November meeting at Altoona, Monday evening, November 9th. A banquet was served to the doctors and their wives by the church ladies at six P. M. at the Methodist Church Basement.

After supper the ladies went to the home of Dr. Addington, where they spent a pleasant evening.

The doctors held their meeting at the Hotel Rainey parlors. Dr. Flack read a paper on anaphylaxis and serum sickness; Dr. Addington one on goitre. Both papers were fully discussed and many points made clear; or at least clearer than they were before, especially about the action of protein in the system.

This is the second time this summer and fall that our society has entertained the ladies; and the idea seems to be popular in this county.

While we have no "Master minds" or "Super-men" in our society, we have students of medicine, and by getting a little from, Tom, Dick, and Harry, we seem to absorb a lot of information from our monthly society meetings; we not only brush up on the older things, but we study and discuss the latest things too.

The December meeting will be held in Neodesha, December 14th.

E. C. DUNCAN,
Secretary.

FORD COUNTY SOCIETY

The Ford County Medical Society at their annual election, December 1st, 1925,

elected the following officers for the year 1926:

President, Dr. C. E. Bandy, Bucklin, Kansas.

Vice President, Dr. J. G. Janney, Dodge City, Kansas.

Secretary-Treasurer, Dr. W. F. Pine, Dodge City, Kansas.

Censors: Dr. G. O. Speirs, Dr. N. E. Melencamp, Dr. F. M. Coffman.

Delegate to state meetin, Dr. C. E. Bandy, Alternate, Dr. G. O. Speirs.

W. F. PINE,
Secretary.

MARSHALL COUNTY SOCIETY

At the recent meeting of the Marshall County Medical Society held in Marysville the following officers were elected for 1926: J. L. Hausman, Marysville, President; M. Brawley, Frankfort, Vice President; J. W. Randell, Marysville, Secretary.

With the exception of one or two, all active men in the county belong to the county society.

Marshall County was represented at the Northeast Kansas Medical Society at Topeka by Dr. Brady, Dr. McAllister, Dr. Roney and Dr. Randell.

The Physicians' Home, Inc.

The campaign to establish an endowment fund for The Physicians' Home, the first small unit of which is already in service at Caneadea, N. Y., was launched Monday, November 23, at the Waldorf-Astoria, New York. An impressive gathering that included men and women prominent in medicine, financial and other fields heard noted speakers outline the purposes of the campaign and laud the movement. A number of substantial donations were received indicating the interest of the profession and the public.

Excerpts from the addresses of speakers follow:

United States Senator Royal S. Copeland, M.D.:

"I hope and trust that there are people enough in this country who appreciate the sacrifices made by the medical profession so that there can be abundant money raised to build a home big enough to take care of all the doctors who need it. I do believe there is that in the heart of the people who have been served by the medical profession to make them glad to furnish the money to build and equip this home."

Congressman John J. Kindred, M.D.:

"From every sentimental standpoint,

from every humanitarian standpoint, from every practical and economic standpoint, there can be but one conclusion as to the urgent necessity for a national physicians' home. Of course it must not be left out of the consideration that this home, in order to be a real credit and a blessing to physicians and to our nation will require a vast deal of money. I am very sure that this great humanitarian plan shall not fall through because of lack of plenty of money."

Samuel Untermyer:

"Above and beyond all professions and occupations, and quite in a class by itself, stands the physician's as the emblem and personification of a life dedicated to public service in its highest sense. In that respect the ethics and practices of your great profession are unique. From the obscure, patient, overworked country doctor, who toils at all hours by day and night relieving suffering and ministering alike to the poor and the rich, to the men who have climbed to the top and have attained national and international fame, "*service*" has been the key-note of their lives. It is no exaggeration to say that fully one-half of their professional lives are devoted to public and charity work. Every hospital is equipped with a staff of eminent specialists whose time thus freely contributed could not be had for money. To your ever lasting credit be it said that no man can attain the highest professional eminence who does not participate in this service.

"I believe that there will be a quick and generous response to this appeal. To think otherwise would be to lose one's faith in the sense of justice of our people.

"I wish you every success and pledge you my fullest support." Rabbi Israel Goldstein, representing the N. Y. Board of Jewish Ministry:

"The physician, most of all, is society's creditor. Mankind will never be able to pay its debt to its physicians and that debt is owing to the humblest among them, because from the bottom to the top, or rather from the top to the bottom, the physician is a servant of God and a servant of man; the physician is the hero and the martyr, whose martyrdom is little heeded, because it is so usual, and therefore I feel confident, men and woman, that this project will earn the support of men and women from all walks of life, for anyone to whom the name of physician means service cannot refrain from holding up your hands, Mr. Chairman, in this noble work you are

launching tonight. That the medical profession itself will support it, is beyond question, first, because the strength of a profession is measured by its organized solicitude for its weakest members, and surely the medical profession will not be adjudged anaemic, and second, because benevolence toward the weaker colleague is to be expected of the physician most of all. In the course of his daily duty, he sees it every day. To the layman, in the full robustness of health and prosperity, it may be necessary to make an appeal to the imagination, and draw before his mental eyes pictures of need, but he, too, will respond."

Dr. Walter P. Bowers, Editor, Boston Medical and Surgical Journal:

"I want to extend to you as far as I am able the spirit of co-operation which I am sure exists in Massachusetts, and how far you may be able to go in co-operation with this organization which already exists, I am unable to say, but it seems to me very proper—and I hope it can be brought about—that our State organization may in some way co-operate with you, even if it does not become absorbed in your larger plan."

Dr. Morris, President of the Home:

"None of the doctors are to be subjected to institutional methods. They will be free to come and go as they please. Those who have nothing will pay nothing. Those who can afford to pay for part or all of their care (and there are many such) will be allowed to do that.

"The Directors of The Physicians' Home are all busy men actively engaged in professional work and receiving no compensation for their time and labor, willingly expended in this charity, the need for which has been brought so strongly to their attention. They feel that it is time, in the larger development of the institution to secure an endowment which will allow them to transfer the responsibilities to men who are trained in social service relating to institutions."

Dr. William H. Dieffenbach:

"It was my privilege, some three or four years ago, to become interested in the Physicians' Home, and I became very deeply interested, owing to the fact that a woman physician whom I had known for a number of years, who had devoted over 45 years of her existence in taking care of the public, serving in the clinics, and in teaching others as a volunteer, had reached a stage in life and in circumstances that prevented and precluded any further activities. She called at my office and this concrete example I

think will bear the whole project home to every one of you and bring it right to a focus so that every one of you will understand the importance of this.

"She said, 'Doctor, I have just one thousand dollars. I am 71 years of age. All the to go into a poorhouse. What shall I do?' rest of my family have died. I do not wish I had received the literature of the Physician's Home a year before, and had subscribed in a small way, and I had their literature before me at that time. I told the lady that I would see if I could get her into this home that we were speaking of. Without the slightest difficulty, Dr. Morris and his colleagues admitted this lady, a lady of very high culture. I myself accompanied her to the Home. She received a welcome there. She inscribed her name in the book as a guest, just as she would at a hotel. She received a private room, with things that the ladies like, plenty of closet room, and she was at home. She was in a very bad nervous condition. She was in a state of health that foreboded the worst. The air, the splendid country around Caneadea, built her up, and after six months of gratuitous board at that place she was able to find, amongst some distant friends, another home to which she afterwards went. It meant the saving of life of this very fine, cultured woman."

Don C. Seitz, of the New York World:

"It is a curious thing about humanity. Away down at heart, it thinks that the doctor, the clergyman and the editor ought to work for nothing and board himself. I know from experience, because my father was all three. He began life as a doctor, passed many years as a clergyman, and wound up as an editor, and had the opportunity to experience this feeling in each of these capacities. Why it should be so I do not know, but I know that it is true, and I know that we do not half appreciate the sacrifices of the three professions in this great and noble land. I hope some effort will be made to extend this movement outside the profession. I know what it means, and I know one thing that you ought to do: You ought to stretch this movement out. Don't put too much on your own shoulders. Remind the public that this need is their need."

Campaign headquarters have been established in the Times Building, Times Square, New York. Contributions should be forwarded to that address, in care of the treasurer, Albert G. Weed, M.D. Other officers and directors are Robert T. Morris, M.D., President; William H. Dieffenbach,

M.D., Vice-President; Silas F. Hallock, M.D., Secretary; and Drs. Warren Coleman, Max Einhorn, Wolff Freudenthal, J. Richard Kevin, Stephen V. Mountain and Ralph Waldo.

It was disclosed at the inaugural banquet that of the more than 140,000 physicians in the United States approximately 5 per cent are incapacitated. It is these the Home seeks to serve.

—R— BOOKS

Intravenous Therapy, its application in the modern practise of medicine by Walton Forest Dutton, M.D. Second Edition. Published by F. A. Davis Co., Philadelphia. Price \$6.00.

Intravenous therapy seems now to be an established method of administering drugs. It is, however, being used by men who have neither the knowledge or experience to use it safely. More definite information is needed. In the second edition the author has added whatever his own experience and the reported experience of others has seemed to justify in this particular line of drug administration.

Radiography, a manual of X-Ray technique, interpretation and therapy by Charles D. Enfield, M.D. Published by P. Blakeston's Son & Co., Philadelphia. Price \$10.00.

According to the author's announcement this book is written for the medical men who, though not roentgenologists, find it necessary to do some or all of their x-ray work. He describes a technique for each of the ordinary routine examinations and gives some very valuable points in the interpretation of the commoner lesions. The author has supplied a very practical book of instructions and has presented the subject in such explicit terms that there should be no difficulty in following the instructions. The illustrations are particularly instructive.

Submucous Endocapsular Tonsil Enucleations by Charles Conrad Miller, M.D., published by F. A. Davis Co., Philadelphia.

The author suggests that there is room for improvement in the procedure and in the technic in removing tonsils and he describes an operation for removing the tonsillar lymphoid and reticular tissues leaving the mucous membrane covering of the anterior aspect of the tonsil and the base membrane upon which the tonsil rests. Pericapsular cellular tissues beyond the base membrane of the tonsil are not invaded.

In addition to a description of the opera-

tion the author offers some very important suggestions on the general subject of tonsillectomy.

Insect and Disease of Man, by Carrol Fox, M. D., Surgeon, U. S. Public Health Service. 92 illustrations, 8 volumes, XII-248 pages. Cloth \$4.00. Published by P. Blankisten's Son & Co., Philadelphia.

This is a practical work on medical entomology, and is intended for field health officers, physicians, entomologists, and others. The first part deals with the classification, identification, anatomy, life history, and general considerations.

The second part discusses the diseases carried by anthropods among human beings. Under each disease is given the causative agent, source of infection, mode of transmission, period of incubation, communicability, epidemiology, recognition of the disease, prevention and control, treatment of carriers, prophylaxis and all practical points.

Physiology, a text book by William D. Zoethout, Ph. D., Professor of Physiology in the Chicago College of Dental Surgery and in the Chicago Normal School of Physical Education. Second edition. Published by C. V. Mosby Co., St. Louis. Price \$4.50.

This book has been prepared to strike a happy medium between the too elaborate works and the too condensed ones. He has attempted to present this subject with clearness of diction. Physiology is a very large field and the author who can present all the facts clearly and concisely is to be complimented. This is not a handbook, but one of six hundred pages well illustrated and well printed.

The Therapy of Puerperal Fever, by Privatdozent Dr. Robert Koehler American edition prepared by Hugo Ehrenfest, M. D., associate in Obstetrics, Washington University School of Medicine. Published by C. V. Mosby Co., St. Louis. Price \$4.00.

This is an exhaustive treatise on the subject. The author says: "The overproduction of partly baseless therapeutic suggestions undeniably is responsible for the existing meddlesomeness which proves far from advantageous to the patients." Prevention is of course given a most prominent place in his discussion. In the management of puerperal infection the author mentions many of the usual procedures for the purpose of telling us why they should be condemned. He has drawn upon his own large experience for many of his conclusions.

The Medical Clinics of North America (Issued serially, one number every other month.) Volume IX, Number III, New York Number, November,

1925. Octavo of 312 pages, with 72 illustrations. Per clinic year, (July, 1925, to Mar. 1926.) Paper, \$12.00; cloth, \$16.00 net. Philadelphia and London. W. B. Saunders Company.

This number of the clinics should appeal to the clinical student. The first article is by Mosenthal on the interpretation of sugar tolerance tests, the next one is by Bastedo on digitalis hypersusceptibility and digitalis dosage. Bass and Herman report cases of infectious mononucleosis in children. Shattuck discusses the clinical use of liver function tests, the icterus index and Rowntree-Rosenthal serum dye test. One of the very practical papers is that of Cannon on the diagnosis and treatment of the commoner types of ringworm. Gluck's clinic on the influence of focal infections is very instructive. Held and May present the present status of x-ray diagnosis of gastric and duodenal ulcer.

Massage and Therapeutic Exercise, by Mary McMillan. Supervisor of Ails in Physiotherapy. Medical Corps, U. S. A. 1919-20. Second Edition, Reset. 12mo of 331 pages with 17 illustrations. Philadelphia and London. W. B. Saunders Company, 1925. Cloth, \$2.50 net.

This is a very complete description of the various manipulations used in massage, giving the indications for use, applicability to different parts of the body and results to be expected. The procedures are described in detail and very well illustrated. The author has had a wide experience in this line of work and her suggestions should be considered worth while.

Applied Biochemistry. By Withrow Morse, Ph. D., Professor of Physiological Chemistry and Toxicology, Jefferson Medical College, Philadelphia. Octavo of 958 pages with 257 illustrations. Philadelphia and London: W. B. Saunders Company, 1925. Cloth \$7.00 net.

This is a very elaborate work on biochemistry, perhaps somewhat too technical for the average physician, but a great deal of information may be gleaned from its pages by the practitioner. As better and more accurate methods have been devised, more definite knowledge of the chemistry of the body has been gained. Biochemistry is the basis upon which scientific medicine must be founded. With the rapid advances made in biochemistry the clinician must keep pace even though it may tax his mental equipment. It is a little regrettable that the subject cannot be presented in less technical language, or that the technical terms may not be elucidated.

A Text-book of Medical Diagnosis. By James M. Anders, M.D., Professor of Medicine, Medical-Chirurgical College, Graduate School of Medicine, University of Pennsylvania and L. Napoleon

Boston, M.D., Associate Professor of Medicine, Graduate School of Medicine, University of Pennsylvania. Third Edition, Entirely Reset. Octavo of 1422 pages, 555 illustrations, some in colors. Philadelphia and London: W. B. Saunders Company 1925. Cloth, \$12.00 net.

Since there seems to be new diseases, since new methods of determining the existence of pathologic conditions are constantly being announced, and new relations between clinical manifestations and pathologic conditions are discovered, it is very necessary that text books on diagnosis be frequently revised. The author of this book has found it necessary to make very many changes, a considerable number of additions and to introduce many new subjects. Much has been added concerning the glands of internal secretion, and in reference to the newly recognized diseases. Many new methods are described so that the book may meet the modern requirements.

Chemical Pathology. Being a Discussion of General Pathology from the Standpoint of the Chemical Processes Involved. By H. Gideon Wells, Ph. D., M.D., Professor of Pathology in the University of Chicago, and in the Rush Medical College, Chicago. Fifth Edition, Revised and Reset. Octavo of 790 pages. Philadelphia and London: W. B. Saunders Company, 1925. Cloth, \$8.50 net.

A very extensive revision of this book is presented. It was the aim of the author to present a basis for the consideration of general pathology from the standpoint of the chemical processes which occur in pathological conditions. He discusses the chemistry and physics of the cell, enzymes, the chemistry of bacteria and their products, chemistry of immunity reactions, etc. In fact the chemical changes that characterize pathologic processes of all kinds in all tissues. No one can read intelligently the medical literature of today without some knowledge of chemical pathology and a little knowledge begets a desire for more.

Thoracic Surgery: The Surgical Treatment of Thoracic Disease. By Howard Lilienthal, M.D., Professor of Clinical Surgery at Cornell University Medical School. Two Octavo volumes totaling 1294 pages, with 90 illustrations, 10 in colors. Philadelphia and London: W. B. Saunders Company, 1925. Cloth \$20.00.

The author has covered a very large field and has given the profession a valuable guide to the diagnosis of the surgical thoracic diseases and has shown the possibility in operative therapy. Considerable space is given to the treatment of pulmonary tuberculosis by pneumothorax. A very thorough discussion of chronic empyema and its surgical treatment will be of great value to the physician and the surgeon.

The description of the surgery of the esophagus and of the mediastinum and of the heart shows the extent of the progress that has been made during the past few years.

The whole work is profusely illustrated.

Medical Record Visiting List or Physicians' Diary, published by William Wood & Co., New York.

This handy little pocket visiting list has been revised for 1926. These are nicely arranged for thirty, sixty or ninety patients as desired.

—R—

American Board of Otolaryngology.

An examination was held by the American Board of Otolaryngology on October 19, 1925 at the Cook County Hospital, Chicago, with the following results:

Passed 120
Failed 23

Total Examined 143

The next examination will be held in Dallas, Texas on April 19, 1926. Applications may be secured from the Secretary, Dr. H. W. Loeb, 1402 South Grand Boulevard, St. Louis, Missouri.

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Is Arteriosclerosis a Hereditary Constitutional Disease?

M. A. Mortenson, Battle Creek, Mich., (Journal A.M.A., November 28, 1925), believes that arteriosclerosis or cardiovascular renal disease is definitely hereditary, as is amply proved by careful study of family histories. Also by way of heredity an abnormal protein metabolism is transmitted, which is manifested by an increased uric acid content in the blood, and no doubt occurring long before any evidence of hypertension of renal disease can be detected. This increased uric acid in the blood suggests an inherited inability properly to metabolize protein, which may be endocrine in origin, or due to abnormal function of liver cells. The best and most rational prophylactic measure as well as remedy is a basic diet, which necessitates a reasonably low protein intake. These statements are based on a study of 300 patients with arteriosclerosis, 200 healthy women, 200 patients chosen because of blood uric acid being below 3 mg., and 200 with blood uric acid above 4 mg. In the series of 300 cases of arteriosclerosis, 67.5 per cent gave a definite history of arteriosclerosis; 8 per cent a history of other well recognized hereditary diseases, namely, obesity, migraine, gout and bron-

chial asthma; the remaining 24.5 per cent were divided between those giving a definite negative history and those having no definite knowledge of causes of death of their ancestors. The study of these 900 cases from the standpoint of heredity and blood chemistry shows conclusively that heredity is a very positive factor in arteriosclerosis and obesity. The incidence of inheritance is suggestive that a dyscrasia affecting protein metabolism is transmitted from one generation to the other.

—R—

Gland Therapy.

Some medicaments can be assayed, and thus standardized, by chemical means—such as belladonna, cinchona, hydrastis, nux vomica, etc.; others by physiological methods, as ergot, digitalis, aconite, convallaria, etc.; but now that gland products are coming into such extensive use, how is the physician to be assured of their activity?

Some of them, it is true are tested by chemical or physiological means, for example desiccated thyroid, adrenalin, and pituitrin; but for the majority there is no assurance beyond the care of the manufacturer in handling the fresh glands and applying suitable methods of desiccation or extraction. The hormones must be preserved; otherwise the gland product is simply so much protein. Here if anywhere the reputation of the manufacturer is a matter of prime importance. Physicians who are particularly interested in gland therapy should read what Parke, Davis & Co. have to say, in their advertisement in this issue about their methods of manufacture.

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Clinical and Experimental Renal Deficiency

The experimental and clinical studies made by Frederick M. Allen, Rudolph Scharf and Harry Lundin, Morristown, N. J. (Journal A.M.A., Nov. 28, 1925), seem to place diabetes and kidney disease on much the same basis. The pathology of both is composed of a primary and a secondary factor. The primary factor is infection or intoxication, producing the initial lesions. The secondary factor consists in a functional overstrain of the damaged organ. The hydropic degeneration of islands of Langerhans is explainable on this ground and no other. Likewise the degenerative changes in the renal epithelium, which have been mysterious in cause and character, can probably in large measure receive the

same functional explanation. Vascular disease or other local peculiarities may make the conditions less clear-cut in the kidneys than in the pancreatic islands. One difference must be recognized in the fact that functional rest of the pancreatic islands clears up glycosuria, while functional rest of the kidneys does not usually clear up albumin and casts. On the other hand, it is also known that albumin and casts are not trustworthy signs of the progressiveness of a case. With allowance for certain inevitable consequences of existing organic and vascular damage, the recognition of the class of secondary anatomic lesions due to functional overstrain should represent a valuable advance in the study of diseases of the kidneys. The clinical application is also important; namely, that for the most part hypertension and nephritis are not inherently progressive but are permanently controllable by adequate sparing of function.

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MEDICAL SCHOOL NOTES

Chancellor E. H. Lindley and the Board of Regents spent a day visiting the Medical School last month.

The new physio-therapy department of the Hospital will be opened in the near future. Most of the equipment is now in place and Miss Isabelle Rearick who will be in charge of this department is now studying under Dr. Elson, Professor of Physio-therapy in the University of Wisconsin.

Dr. O. S. Gilliland was elected Secretary of the Jackson County Medical Society at their last meeting.

Dr. M. J. Renner, '22, who has just completed his service as resident surgeon to the Cleveland General Hospital, visited the Medical School recently.

Dr. and Mrs. F. I. Wilson have announced the birth of a daughter. Mrs. Wilson was Dr. Hester Kaufman, '21.

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Action of Pituitary Extract on the Uterus

The action of pituitary extract on the uterus, M. Pierce Rucker, Richmond, Va. (Journal A. M. A., Nov. 21, 1925), shows, is quite characteristic. It never gives contractions with periods of rest between, but always a continuous series of contractions with increase in intra-uterine pressure. This action was illustrated in a case of inevitable abortion in which labor was induced in the fourth month with a number

3 Voorhees bag. The patient was given one-fourth grain (0.0162 gm.) of morphin and 1-150 grain of atrophin at 1:30 p. m. At 8 p. m. she was having painless contractions of the uterus that averaged 10 mm. of mercury at intervals of two minutes. She was given 5 minims (0.3 c.c.) of pituitary extract subcutaneously. Five minutes later, there was a characteristic pituitary extract action. The contractions increased in height only very slightly but were continuous one after another, without any period of rest. Twenty-two minutes elapsed before there was the slightest pause between contractions. The intra-uterine pressure was increased 6 mm. of mercury. The patient still felt no pain. In other words, here was a dose so small (considering the stage of pregnancy) that it caused no action clinically, and yet it produced an incomplete tetanus of the uterus.

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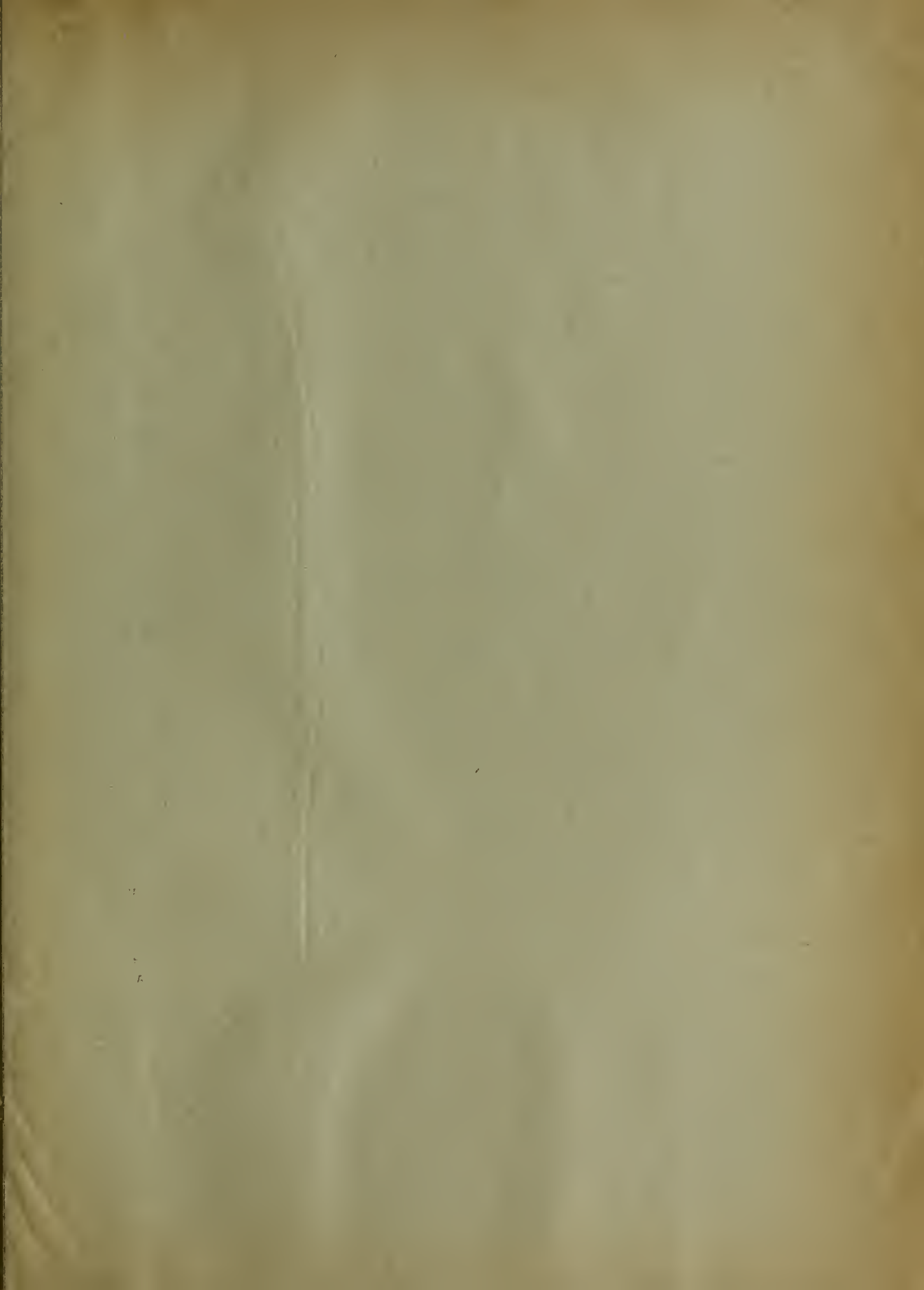
Achlorhydria Preceding Pernicious Anemia

The case reported by Mills Sturtevant, New York (Journal A. M. A., Nov. 21, 1925), is of more than fourteen years' duration, from the time of known achlorhydria to the onset of the symptoms of pernicious anemia. It is reported to be of longer duration than that of any case on record. This patient's symptoms of achylia began in 1899. In 1900, he was told he had achlorhydria. The sore mouth began in 1915. It was discovered that he had pernicious anemia early in 1916. It seems conclusive that the achylia had lasted over fourteen years when the anemia developed.

FOR SALE—Surgical practice hospital together with X-Ray machine. Property must be purchased. Practice long standing. Property excellent, close in.—In care of Journal.

FOR SALE—Central S. Dakota—General practice averaging \$6,500.00 for ten years, with or without modern office building, county seat modern town of 1200. Main line railroad. Appointments transferable. Protestant not over 35 desired. Will sell all or one-half and other half in six months. Only first class man considered. Price upon application. Address Lang—in care of the Journal.

WANTED—Salaried Appointments for Class A physicians in all branches of the Medical Profession. Let us put you in touch with the best man for your opening. Our nation-wide connections enable us to give superior service. Aznoe's National Physicians' Exchange, 30 North Michigan, Chicago. Established 1896. Member The Chicago Association of Commerce.



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